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S. Hrg. 104–671, Pt. 2

Senate Hearings

Before the Committee on Appropriations

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Department of Transportation and Re...

Department of Transportation and Related Agencies Appropriations

Fiscal Year 1997

104th CONGRESS, SECOND SESSION

H.R. 3675

PART 2 (Pages 1–1133)

ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD
DEPARTMENT OF TRANSPORTATION
NATIONAL TRANSPORTATION SAFETY BOARD
PANAMA CANAL COMMISSION
SURFACE TRANSPORTATION BOARD
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

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S. HRG. 104–671, PT. 2

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1997

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

ONE HUNDRED FOURTH CONGRESS

SECOND SESSION

ON

H.R. 3675

AN ACT MAKING APPROPRIATIONS FOR THE DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1997, AND FOR OTHER PURPOSES

PART 2 (Pages 1–1133)

Architectural and Transportation Barriers Compliance Board
Department of Transportation
National Transportation Safety Board
Panama Canal Commission
Surface Transportation Board
Washington Metropolitan Area Transit Authority

Printed for the use of the Committee on Appropriations

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DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1997

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

MATERIAL SUBMITTED BY AGENCIES NOT APPEARING FOR FORMAL HEARINGS

[CLERK'S NOTE.—The following agencies of the Department of Transportation and independent related agencies did not appear before the subcommittee this year. Chairman Hatfield requested these agencies to submit testimony in support of their fiscal year 1997 budget request. Those statements and answers to questions submitted by the chairman follow:]

DEPARTMENT OF TRANSPORTATION

PREPARED STATEMENT OF THE BUREAU OF TRANSPORTATION STATISTICS

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 established the Bureau of Transportation Statistics in the U.S. Department of Transportation (DOT). The missions of BTS are to compile, analyze, and make accessible information on the Nation's transportation systems; to collect information on intermodal transportation and other areas as needed; and to enhance the quality and effectiveness of the statistical programs of the DOT through research, the development of guidelines, and the promotion of improvements in data acquisition and use. BTS thus develops and disseminates the transportation knowledge base--on the attributes of the intermodal system, its level of performance for its varied customers, and its impacts on the economy, environment, and safety--to inform the decisions of DOT, other agencies and other levels of governments, and the private sector.

Under current law, financing of the BTS' operations is authorized as contract authority out of the Highway Trust Fund. The contract authority is included in the Federal-Aid Highways program and is subject to the obligations limitation applicable to that program. Funds are transferred to the Bureau from Federal-Air Highways, where all the obligations and outlays are counted.

In May 1995, BTS assumed responsibility for the Department's aviation information program. BTS's Office of Airline Information (OAI) collects air carrier financial and traffic data (passenger and cargo) pursuant to 49 U.S.C. 329 and 41708. This information provides uniform and comprehensive economic and market data on individual airline operations. OAI was transferred to BTS from DOT's Research and Special Programs Administration, where it was known at different times as the Office of Airline Statistics and the Office of Aviation Information Management. The program came to DOT in January 1985 with the sunset of the Civil Aeronautics Board.

BTS is also responsible for collecting motor carrier financial data pursuant to 49 U.S.C. 14123 (Pub. L. 104-88). This function was transferred to BTS effective January 1, 1996, after the sunset of the Interstate Commerce Commission.

Program Level

The Bureau's FY 1997 proposed program level of $28,100,000 would be funded by contract authority of $25,000,000 from the Highway Trust Fund for the core BTS program, , and an appropriation of $3,100,00 from the Airport and Airways Trust Fund for aviation statistics.

The Bureau's request level for its core program does not exceed the 1997 level as prescribed in ISTEA of $25 million. It is included in Federal-Aid Highways. The Aviation Statistics appropriations request is described here.

Office of Airline Information

The BTS Airline Information (OAI) program's mission is to provide the U.S. government, the DOT and other users with uniform and comprehensive financial and traffic and economic data on individual air carrier operations and the air transportation industry. The industry is comprised of 260 U.S. airlines and 215 foreign (non-U.S.) airlines. Over 12,000 paper financial reports and 2,100 computer diskettes/tapes of financial and traffic statistical data are processed annually. The BTS-OAI program also provides customized computer programming support services to DOT users. DOT uses airline economic data and customized computer services to support policy initiatives, to advance safety programs, to meet international air travel responsibilities, and to comply with international treaty obligations. The airline data are a significant component in DOT's intermodal data banks because most interstate and international commercial passengers travel by air.

Other U.S. government agencies also use DOT's airline data. For example, the Environmental Protection Agency uses the data for environmental impact studies, the Department of Commerce uses the data to facilitate international commerce and tourism, the Department of Labor uses the data to compute productivity and consumer price indexes, the U.S. Air Force utilizes the data to conduct its military charter programs, and the Department of Justice uses the data to manage its customs operations, and in anti-trust matters. The U.S. aerospace industry, one of the few U.S. industries with a positive trade balance, uses the OAI data to develop and market new airframes and new aircraft engines. State and local governments use the data for environmental impact studies and to market new air services and facilities. Airlines, financial institutions and academia also use the OAI data to conduct analyses for various aviation related projects.

Under 49 U.S.C. Sec.41708 and 41709 (formerly 40 App U.S.C. Sec. 407), the Secretary of Transportation may require airlines to comply with accounting, reporting, and record retention requirements. 49 U.S.C. Sec. 46301 (formerly 49 App. U.S.C. Sec. 901(a)(1)), allows civil penalties to be assessed for failure to comply.

The OAI program resources are located at DOT headquarters in Washington, D.C. with a field office in Anchorage, Alaska. The Alaska Field Office handles data submissions from small Alaska carriers (approximately 40) filing the Form 298-C report. This local interface provides for more reliable and timely data to support DOT's international mail rates and intraAlaskan mail rates programs.

POSITIONS
One new position for FY97
20 FTP and 20 FTE are requested for FY97.

BTS-Airline Information is conducting an examination of the program's mission and functions. From this analysis, it is developing data systems modernization plans which, when implemented, will yield significant productivity improvements. The impact of these proposals on resources is included in the FY97 proposals.

AIRLINE INFORMATION GOALS - FY97

BTS will continue to maintain and modernize its Airline Information program for air carrier data collection, aviation data analysis, dissemination and processing capabilities to provide Congress, DOT, other agencies (Commerce, Justice, Labor, Defense, etc.), the aviation industry, and other data users access to accurate, timely, financial and traffic statistics on air transportation.

REQUESTED FUNDING: Funding at the requested level will enable BTS to continue Airline Information data operations and modernize the data collection and processing systems to meet 21st Century transportation data needs and to meet the Secretary's information and customer service goals announced in the DOT Strategic Plan.

ACCOMPLISHMENTS: An electronic bulletin board developed in FY 95/96 is being improved in FY97 to distribute air carrier financial and traffic data to FAA and OST customers and others. A toll-free number is operating. This user-friendly system has improved customer satisfaction with timely and readily available data. Also, the Office has acquired software tools to improve access to airline data and analysis of the data by the FAA Office of Integrated Safety Analysis, OST and other DOT customers. A sophisticated computer data retrieval and analytical system is being employed by DOT-users, with limited previous computer programming skills, to review and extract data from large computer files as easily as is possible from a Personal Computer.

CURRENT PLANS FOR SYSTEM MODERNIZATION:
BTS-Airline Information is currently exploring technologically advanced alternatives to the current Origin-Destination 10% air passenger ticket survey that are consistent with BTS-Airline Information's efforts to achieve increased efficiencies through re-engineering. The following advantages are anticipated:

- Provide uniform data bases accurately reflecting current airline activities;
- Reduce airlines' burden for data filing under current statutes;
- Limit data storage and retrieval costs, and modernize systems presently using outdated COBOL, FORTRAN, NATURAL-ADP computer code that dates from the 1960's;
- Improve user access to the air carrier data on the electronic bulletin board, and enable user access to data via INTERNET.

PROGRAM: BTS-AIRLINE INFORMATION-RESEARCH AND SYSTEMS ANALYSIS

The objective of the Research and Systems Analysis (RSA) activity is to prescribe, through rulemaking, the accounting, reporting, and recordkeeping requirements for industry reporting of uniform and consistent data to the Department (DOT). In addition, interpretations, instructions letters, and waivers are issued to help maintain uniform and consistent reporting. RSA provides assistance to air carriers that seek clarification of their reporting responsibilities. This assistance has taken the form of one-on-one meetings, regional meetings, instruction pamphlets, directives and letters.

The RSA activity's goal is to assist in determining what data the DOT needs to fulfill its air transportation program and advocacy roles; to decide whether to obtain the data from existing sources, if any, or whether to burden air carriers with additional reporting responsibilities; and to develop and maintain appropriate systems based upon these decisions.

The RSA activity evaluates and analyzes the air transportation industry's operations, practices, and procedures in order to align DOT information regulations with the industry's regular and ongoing business activities. The objective is to minimize government intrusion on business and eliminate unnecessary reporting burdens, while obtaining correct, reliable and timely data to support DOT's programs.

ACCOMPLISHMENTS:
The total industry and individual carrier reporting burden has decreased for FY96 because of innovative OAI reporting practices and accounting directives (see Table A and B).

Table A

OAI Program Burdens	FY1992	FY1993	FY1994	FY1995	FY1996	FY1997
Industry Burden Hours	86000	90300	93150	72000	73000	85690
Number of Air Carriers	425	430	450	450	450	410
Burden Hrs/Air Carrier	202	210	207	160	160	209

OAI analyzes the airlines' existing accounting and reporting systems and explores alternative, less burdensome systems which will provide the required data. As needed, OAI establishes or revises accounting, reporting, and record retention requirements, and revisions of existing rules as necessary

Table B

System Administration	FY92	FY93	FY94	FY95	FY96	FY97
Airline Instructions	26	120	111	115	120	120
Industry Directives	12	12	13	13	13	13
Waivers	25	33	43	50	50	50
Due Date Extensions	31	50	54	55	55	55
Special Reports	8	10	19	20	20	20
Misc. Del-Auth. Action	95	120	160	160	160	160
Confidentiality Req.	162	160	174	180	180	180
Access Restricted Data	102	200	200	125	130	130
Total	461	705	774	718	728	728

Basically, FY96 and FY97 are periods for maintaining and stabilizing the reporting systems, while bringing on-line concurrent plans for data system improvements required by DOT users. RSA will plan and implement the necessary reporting requirement associated with the modernization of systems which provide for the reporting of aviation data, with particular emphasis on the Passenger Origin-Destination Survey. The OAI program allocated four (4) of 20 FY97 positions in the Research and Systems Analysis activity for communicating with air carriers on their information obligations, intraAlaska mail rates, and the processing of waivers, reporting extensions, and related work (see Table B).

PLANNED FOR FY97:
Work in FY97 will focus on improving the existing systems to meet the expanding requirements set by Office of the Secretary and the FAA, and concurrently, develop new systems that better utilize airline industry technological advances.

A joint study sponsored by the Department's Bureau of Transportation Statistics and the Office of Assistant Secretary for Aviation and International Affairs was undertaken in FY95 to review the Airline Statistics (OAI) program. This study included a systems requirements analysis to determine data requirements, identify resource requirements, staffing mix, and equipment needs. As a direct result of that study, BTS has acquired the OAI program and embarked on a program to modernize its systems to better meet user needs.

Another study conducted by the Office of Assistant Secretary for Aviation and International Affairs on the effects of code-sharing on U.S. air carriers was completed in FY95. The study identified new data requirements that are needed in the Passenger Origin-Destination (O&D) Survey to monitor the effects of international code-sharing. The O&D Survey is critical to the Departments analysis of the economic and competitive implications of international policy initiatives, such as code-sharing and open skies bilateral agreements.

PROGRAM: BTS - AIRLINE INFORMATION - ENFORCEMENT

Airlines fail to comply with target dates and quality guidelines when they submit periodic reports. The primary objectives of the enforcement activity are to: determine whether airlines are in compliance with reporting regulations; monitor the timeliness of the airlines' reports; and establish formal communication with airlines to resolve delinquent reporting problems.

Identifying inconsistencies and inaccuracies in airline reports and promptly obtaining corrections are critical to maintaining DOT confidence in the OAI program data bases. These reporting inconsistencies and inaccuracies are not computational errors, which are usually identified and corrected during routine information processing, but rather, more serious reporting problems that are evident in individual filings that require more extensive investigation to remedy.

Compliance investigations and desk reviews help resolve these reporting problems. However, the systems used by airlines for gathering and accumulating source data can only be checked in the field, by audits at air carrier facilities. This field work is necessary to ensure the uniformity of the airline statistics reported.

ACCOMPLISHMENTS:

Two of the OAI program positions were allocated to address the enforcement problems in FY96. The Alaskan Office of staff personnel, the supervisor and new inspector are a part of the enhanced enforcement. The reports receipt and control workload follows in Table C.

Table C

Reports Handling	FY92	FY93	FY94	FY95	FY96
Paper Reports Per Year	8833	9275	9740	10275	10600
Computer Media Rpts/Yr	1825	1915	2010	21252	2200
Total Reports/Yr	10658	11190	11750	12400	12800
U.S. Reporting Carriers	229	230	240	260	270
Foreign Reporting Carriers	196	200	210	215	220
Total Reporting Carriers	425	430	450	475	490

The Automated Log-In and Control System (ALICE) system monitors and tracks each air carrier's reporting status. A profile of each air carrier's reporting obligations is entered into the ALICE system. A punctuality report is issued each quarter to show air carriers how timely they were in comparison with their competitors during the most recent six months. Use of the ALICE system and immediate follow-up with delinquent air carriers has limited the "average days late" at an acceptable level (refer to Table D).

Table D

Avg. Days Late/Report	FY92	FY93	FY94	FY95	FY96
U.S. Majors	0.5	0.4	0.4	0.4	0.4
U.S. Nationals	3.7	3.5	3.0	3.0	3.0
U.S. Regional	8.2	8.0	7.5	7.5	7.5
Commuter	9.3	8.5	8.0	10.0	11.0
Foreign	14.0	13.0	12.0	15.0	16.0

Table E

Enforcement Activity	FY92	FY93	FY94	FY95	FY96
Total Carriers Referred	45	50	51	30	25
Total Enforcement Actions	10	9	8	6	5
Total Civil Penalties ($000)	200	165	92	75	75

PLANNED FOR FY97:
In FY97, OAI will work to improve the timeliness and accuracy of its data bases, in particular the Origin & Destination Survey.

PROGRAM: BTS - AIRLINE INFORMATION - DATA SERVICES CONSULTATION

Data Services and Consultation, in FY1996 and FY1997, will implement ADP coding upgrades from outmoded 1960's COBOL and other languages in order to meet DOT-users' requested improvements to the major OAI data systems, such as the Passenger Origin-Destination Survey. These upgrades are essential to meet 21st Century requirements for transportation data systems. The plans will create significant additional coordination, consultation and resolution demands for the ADP Data Services Division staff in FY96 and FY97. The FY97 ADP Data Services FT. staff (4) will not accommodate the workload associated with the software changes and consultation to meet DOT users' data issues, and the gap will be filled with contract staff. DOT users are demanding more detailed and complex information about the data OAI is processing which increases the need for more data consultation. Because air carrier data collections are statutory mandated, and promulgated by the Department under 49 U.S.C. Sec. 41708 and 41709 (formerly 40 App U.S.C. Sec. 407), contract staff or government employees will be available to meet the transportation information requirements of DOT users. Furthermore, DOT user are demanding more data, for example the O&D Survey has been expanded to encompass the selling air carrier and operating air carrier in order to provide greater insight into the potential net benefits of international code-sharing agreements. This increases the workload on Data Services and Consultation.

ACCOMPLISHMENTS:
In FY96 and FY97, the focus will shift from a major effort to control computer mainframe data validation and processing, user access costs and to decrease the data through-put time by providing the DOT user's direct access for manipulating the OAI data systems.

Instead, the Data Services/Consultation will focus on using its BTS-OAI resources, both FTP and contractors, to meet DOT Users' requirements. Improvements in the ADP coding for the major data systems will provide more effective, customer-friendly services for airline information users.

In FY95/96, consultation and ADP data services were provided to support the modifications associated with the validation and comparison of the Origin and Destination system Data with the T-100 Traffic data system. Extensive programming and consultation were provided to the Part 234 On-Time Flight Performance System to begin processing the added wheels on/off and aircraft tail number at the request of the FAA.

For FY97 the four (4) ADP Services Division FTP are allocated between data systems development and ADP services/data consultation work. Contract support previously enabled the data services activity to support DOT user needs that could not be accommodated with FTP staffing.

PLANNED FOR FY97:
The OAI Data Services and Consultation program will provide the anticipated software upgrade to facilitate essential modifications to automated data systems, such as the Passenger Origin-Destination Survey. Software required to provide permit cross checking between the O&D data systems and the T-100 system will be developed to assure greater data system accuracy.

PROGRAM: BTS - AIRLINE INFORMATION
INFORMATION PROCESSING AND VALIDATION

Information processing validation (IPV) will continue to maintain the operation for collection, processing, validation, editing, accessibility, and dissemination of airline financial and traffic statistical data. The major challenges are to reduce the air carriers' reporting burden, improve the operations of the ADP systems through improved coding, efficiency of operations, and user friendly computer access, and provide the DOT, Congress, Federal agencies, aviation industry, and public users faster access to more accurate data. The OAI program currently consists of 6 major data systems (see Table F). The INS-I-92 citizenship data processing has been transferred to the U.S. Travel and Tourism Administration of the Department of Commerce. The remaining six data systems and associated utility applications need substantial modernization work to accommodate airline industry changes such as globalization, open skies, niche carriers, and any new initiatives promulgated by the airline industry. Ten of the FTP positions are assigned to the Information Processing and Validation activity.

Table F

Financial/Traffic/Market Data Systems:
1. Form 2787 Passenger Origin-Destination Survey
2. Form 41 Financial Data (Financial Position, Operating Results, Costs by Aircraft Type, Fuel, Payroll, and Aircraft Fleet)
3. T-100 Domestic (US Carriers)
4. T-100 International (Foreign and U.S. Carriers)
5. Form 298C Commuter and Small Certificated Air Carrier Data
6. Form 234 On-Time Performance/Flight Delay Data

Transitioning from the antiquated 6 data systems (with ADP programming and outmoded user-interface facilities that date from the 1960's), to an improved and modernized 4th generation software and applications is being undertaken in FY1996 and FY97. This budget reflects the resources required by the airline information program to permit the Department to respond to the changes in the airline industry.

ACCOMPLISHMENTS:

In FY96, the Information Processing and Validation activity expects to have collected, processed and disseminated domestic passenger traffic statistics, financial data, both origin and destination data, and non-stop market data to meet the statutory requirements pursuant to the Federal Aviation Act. In excess of 12,000 traffic/market and financial reports, 2,000 computer disks/tapes covering over 475 U.S. and foreign carriers will be collected, validated, processed, and stored for use by DOT and other government and private organizations. This workload is expected to continue and, as the number of certificated and reporting air carriers continues to grow, to accelerate in FY97.

Ten of the 20 FTP positions and additional contract personnel are planned to be allocated to the IPV activity in FY97.

Proposed Full Time Positions in FY97: FTP = 20
Proposed Full Time Equiv. (FTE) in FY97: FTE = 20
Change in FTP from FY96 to FY97: + 1

OFFICE OF DIRECTOR/SECRETARY FTP = 2
FTE = 2

REGULATIONS DIVISION*	DATA ADMINISTRATION DIVISION	ADP SERVICES DIVISION
FTP = 4	FTP = 10	FTP = 4
FTE = 4	FTE = 10	FTE = 4

* Includes the Alaskan supervisor and inspector.

Changes in resources: The FY 1997 program represents a net increase of $900,000 over FY 1996 levels. The FY 1997 estimate reflects an increase of one FTE from the estimated level of FY 1996. PC&B expenses are estimated to remain relatively stable except for a net increase associated with non-discretionary pay raises (the annualized FY96 increase of 2.54% and the estimated FY97 increase of 3%) and for an estimated increase to provided for an inspector for the Alaskan Field Office. The increase in PC&B is partially offset by the retirements of four experienced staff, including one at the GM-15 level and the proposed employment of one Alaskan inspector and two professional analytical staff in realigned positions to serve OST and FAA's expanding requirements. The Alaskan inspector position is proposed to meet the needs of the U.S. Postal Service and DOT to help ensure the accuracy and timeliness of data collected from Alaskan carriers for calculation of mail rates.

The FY 1997 budget proposes fiscal expenditures of $3,100,000. Obtaining the estimated level of funding to improve interim systems would enable OAI to support more fully requests for Origin & Destination Passenger Survey (O&D) data needed for rulemakings, expanded O&D data bases and increased analysis in support programs whose purposes are:

- participation in formal proceedings resulting in the award of new international route authority between the U.S. and foreign countries,
- analysis of the net benefits to the U.S. of international aviation code-sharing agreements, and
- establishment of the U.S. position in international bilateral aviation negotiations with foreign governments.

Reduced funding would severely limit the level of staff and computer processing time available to accomplish these objectives. Furthermore, programs designed to serve the FAA's efforts in traffic flow control, airport funding and development, airways safety analysis and economic forecasts would be similarly hampered by OAI's inability to devote the resources to process data and perform computer based analysis.

Funding to permit interim improvements in antiquated OAI systems require an additional $321,000. This level of funding would provide $155,000 for three additional contractual personnel to validate and edit the recently added O&D and T-100 domestic and foreign traffic data mandated from the airlines as a result of the Department's need to develop more accurate information concerning expanding international marketing relationships that have evolved in the airline industry. Other major expenditures for interim improvements will be composed of $11,000 for additional support data tapes (Official Airline Guide), and $85,000 in additional mainframe computer processing time and $10,000 in related software expenses. Other categories such as rent, communication, travel and supplies are increased 2% for inflation.

A major system modernization is imperative because of technological advances in the airline and communications industries which have relegated our 10 percent paper ticket sample, developed 25 years ago, unreliable and costly to submit, collect and process. The airlines have, for two decades, relied on computer based reservation systems in which the customer flight information is maintained on magnetic media. Most recently, the airlines have implemented electronic (ticketless) transactions in which paper records are not developed. This eliminates the only source of data for OAI's current system. In response to DOT needs for accurate, timely, cost effective, and comprehensive data and to industry requests that it no longer be required to submit paper ticket data, we are seeking to modernize the airline information system to directly obtain data from the more technologically advanced computer reservation systems that are the standard in the industry. The major expenditures for system modernization will be composed of $99,000 in PC&B for the an Alaskan inspector and non-discretionary adjustments, $39,000 in operations for communications software and hardware, $20,000 in software expenses and installation, and $95,000 in additional mainframe computer processing time and in related software expenses and $326,000 in temporary personnel to code, test, implement and document new mainframe computer software. Contractual staff are essential in order to perform system modernization design, coding and installation.

The Bureau of Transportation Statistics proposes to fund a the FY 1997 program level requirements of $3,100,000 from the Airport and Airways Trust Fund.

Following is a breakdown and explanation of increases reflected in the budget request.

Non-discretionary changes:

FY 1997 pay act increase This will provide three-quarter year funding for the proposed pay act increase effective in January, 1997.	$ 25,000
Annualization of FY 1996 pay act increase This annualizes the January, 1996, pay act increase by providing recurring funding for the fourth quarter.	,$8,000
Also there is an increase in benefits of	$18,000

Discretionary changes:

Add one FTE for an Alaskan Inspector and pay differential for Alaska	$86,000
Interim improvements	$283,000
System modernization, Central Processing charges	$480,000
Total changes	$900,000

DEPARTMENT OF TRANSPORTATION

Bureau of Transportation Statistics

Office of Airline Information

Explanation of Changes in Resources

	1996 Enacted	1997 Estimate Improved Interim Systems	Change	1997 Estimate Modernize Systems	Change	Year Over Year Change FY96-97
Full-Time Equivalent Employment	19	19		20		1
Program Level:						
Personnel with 1 FTE for an Inspector & pay raises	$ 1,171	$ 1,205		$ 1,289		$ 119
Benefits	$ 187	$ 191		$ 206		$ 19
Subtotal Government PC&B	$ 1,358	$ 1,396	$ 38	$ 1,495	$ 99	$ 137
Rent, Communications, Utilities	$ 167	$ 172	$ 5	$ 172	$ -	$ 5
Printing	$ 15	$ 16	$ 0	$ 16	$ -	$ 0
Travel	$ 8	$ 12	$ 4	$ 12	$ -	$ 4
Supplies and Materials	$ 11	$ 11	$ 0	$ 11	$ -	$ 0
Equipment purchases	$ 20	$ 33	$ 13	$ 33	$ -	$ 13
Operations 1/	$ 94	$ 105	$ 11	$ 143	$ 39	$ 49
Computer expenses 2/	$ 360	$ 445	$ 85	$ 540	$ 95	$ 180
Mainframe Computer Software Expenses and Installation	$ -	$ 10	$ 10	$ 30	$ 20	$ 30
Contractual Personnel	6	3		3		3
Contractual Personnel Expense	$ 167	$ 322	$ 155	$ 648	$ 326	$ 481
Expenses other than PC&B - Subtotal		$ 1,125	$ 283	$ 1,606	$ 480	$ 763
Total Program Costs	$ 2,200	$ 2,521	$ 321	$ 3,100	$ 579	$ 900

1/ Operations include expenses for Official Airline Guide Tapes ($45,000) and books, the Department of Commerce's Export/Import database ($20,000), Data base Products aviation CDROMS ($24,375), software and software upgrades, PC equipment service, online computer services, Alaskan Office expenses, and miscellaneous books, manuals and subscription.

2/ Expenses includes Transportation Computer Center central processor charges, storage fees, operator assistance, printing fees, tape library and storage fees. These expenses are spread among the major data systems (Origin & Destination 24%, T-100 Traffic 30%, T-100f foreign Carrier Traffic 13%, Form F41 Financial 2%, 298-C Commuter Traffic 2%, 234 Flight Delay/Ontime Performance 7%, ICAO 5%, and miscellaneous systems support files 17%.

DEPARTMENT OF TRANSPORTATION
Bureau of Transportation Statistics
Office of Airline Information
Object Classification (in thousands of dollars)

Identification code 69-0305-0-1-407		1995 actual	1996 estimate	1997 estimate
	Personnel Compensation:			
11.1	Full-time permanent	in RSPA	$1,171	1,289
11.3	Other than full-time permanent	in RSPA	....	....
11.5	Other personnel compensation	in RSPA		
11.9	Total personnel compensation	in RSPA	1,171	1,289
12.1	Civilian personnel benefits	in RSPA	187	206
13.19	Voluntary separation incentive pay	in RSPA		
21.0	Travel and Transportation of persons	in RSPA	8	12
22.0	Transportation of things	in RSPA	...	...
23.3	Communications, utilities, and miscellaneous charges	in RSPA	167	172
24.0	Printing and reproduction	in RSPA	15	16
25.1	Advisory and assistance services	in RSPA		
25.2	Other services	in RSPA	621	1,361
25.3	Purchases of goods and services from Government accounts	in RSPA		
25.4	Operations and maintenance of facilities	in RSPA		
26.0	Supplies and materials	in RSPA	11	11.33
31.0	Equipment	in RSPA	20	33
99.9	Total obligations	in RSPA	2,200	3,100

DEPARTMENT OF TRANSPORTATION
Bureau of Transportation Statistics

Personnel Summary

	1995 actual	1996 estimate	1997 estimate
Total compensable work years:			
5001 Office of Airline Information Full-time equivalent employment	RSPA	19	20
5001 Bureau of Transportation Statistics Full-time equivalent employment	30	42	40
TOTAL:	30	61	62

DEPARTMENT OF TRANSPORTATION
Bureau of Transportation Statistics
Office of Airline Information Statistics
Program and Financing (in thousands of dollars)

Identification code 69-0305-0-1-407	1995 actual	1996 estimate	1997 estimate
Obligations by program activity:			
10.00 Total obligations	in RSPA	2,200	3,100
Budgetary resources available for obligations:			
Unobligated balance available, start of year:			
22.00 New budget authority, start of year	in RSPA	2,200	3,100
23.95 New obligations	in RSPA	-2,200	-3,100
New budget authority (gross), detail:			
40.00 Appropriation	in RSPA	2,200	3,100
Change in unpaid obligations:			
72.40 Unpaid obligations, start of year: Obligated balance:	in RSPA		
Appropriation	in RSPA		
73.10 New obligations	in RSPA	2,200	3100
73.20 Total outlays (gross)	in RSPA	1,496	2,812
74.40 Unpaid obligations, end of year: Obligated balance:	in RSPA		
Appropriation	in RSPA	704	288
Outlays (gross), detail:			
86.90 Outlays from new current authority	in RSPA		
86.93 Outlays from current balances	in RSPA		1,000
87.00 Total outlays (gross)	in RSPA	1,496	2,812
Net budget authority and outlays:			
89.00 Budget authority	in RSPA	2,200	3,100
90.00 Outlays	in RSPA	1,496	2,812

QUESTIONS SUBMITTED BY SENATOR HATFIELD

BUDGET REQUEST DISPLAY

The BTS fiscal year 1997 budget justification is in two parts: ISTEA contract authority is displayed under the Federal Highway Administration's Federal-Aid Highways account (Highway Trust Fund), and, though the Committee has not received a budget justification making this request, it is our understanding that the funds for the Office of Airline Information are to come out of the Airport and Airways Trust Fund. This method of relaying the agency's budget request does not provide the necessary level of detail to analyze BTS's budget.

Question. For the record, please use the standard OMB object classification budget line item identification codes to display a specific breakout of your FY 1997 budget request. Please prepare this line item breakout for both the Bureau of Transportation Statistics's request of $25 million and the Office of Airline Information's (OAI's) request of $3.1 million. Include enacted funding levels for fiscal years 1995 and 1996 and the requested funding for fiscal year 1997.

Answer. Object classification for the Bureau of Transportation Statistics:

Object class	Description	FY 1995 Enacted	FY 1996 Enacted	FY 1997 Request
	Personnel			
11.1	Full-time staff	710,000	2,478,000	3,778,950
11.3	Part-time staff	0	0	0
11.5	Other personnel compensation	0	0	0
12.1	Personnel benefits	355,000	594.720	906,948
	Travel			
21.0	Travel and transportation of things	2,000	7,000	20,000
22.0	Travel and transportation of persons	35,000	60,000	120,000
	Administration/Communications			
23.1	Rent (office space)	Paid for out of the DOT consolidated rent account		
23.25	Postage	20,000	20,000	20,000
23.28	Telephones	10,000	30,000	50,000
24.0	**Printing**	40,000	280,000	472.400
25.0	**Contracts/Services**	13,683,000	15,898,425	18,455,000
25.7	Operations and maintenance of equipment	0	300	300
26.0	**Supplies and Materials**	45,000	80,000	94,000
31.0	**Equipment**	70,000	362,345	480,702
	TOTAL OBLIGATIONS	14,970,000	19,810,790	24,398,300

NOTE: Telephone and postage amounts are estimates based on prior usage and forecasts of usage. This object class is usually combined as "Rent, Communications, and Utilities," and BTS's communications and utilities are paid for out of the Working Capital Fund.

Office of Airline Information. Since OAI only became part of BTS in June 1995 and was funded from the Research and Special Programs Administration (RSPA) through the end of fiscal year 1995, budget figures are not known to BTS and should be reported as a part of RSPA's budget justification.

Object class	Description	FY 1995 Enacted	FY 1996 Enacted	FY 1997 Request
	Personnel			
11.1	Full-time staff	RSPA	1,170,681	1,289,356
11.3	Part-time staff	RSPA	0	0
11.5	Other personnel compensation	RSPA	0	0
12.1	Personnel benefits	RSPA	187,320	206,297
	Travel			
22.0	Travel and transportation of persons	RSPA	8,000	12,000
	Administration/Communications			
23.1	Rent (office space)	RSPA	Paid for out of the DOT consolidated rent account	
23.25	Postage	RSPA	14,700	17,640
23.28	Telephones	RSPA	11,025	11,575
24.0	**Printing**	RSPA	15,000	16,000
25.0	**Contracts/Services**	RSPA	261,000	824,000
26.0	**Supplies and Materials**	RSPA	11,000	11,000
31.0	**Equipment**	RSPA	521,275	712,784
TOTAL OBLIGATIONS		RSPA	2,200,000	3,100,000

STAFFING LEVELS

Question. Please show the number of FTE staff positions within each of the BTS's three offices, for fiscal years 1995, 1996, and requested for fiscal year 1997 (Office of the Director, Office of Statistical Programs and Services, and Office of Transportation Analysis).

Answer. FTE Levels by office for the Bureau of Transportation Statistics, excluding the Office of Airline Information are:

Office	FY 1995	FY 1996	FY 1997
Office of the Director	9	9	9
Office of Statistical Programs and Services	5	11.5	11
Office of Transportation Studies	9	21.5	21
Total	23	42	41

Question. Please display the same staffing information for the Office of Airline Information (OAI), for fiscal years 1995, 1996, and requested for fiscal year 1997.

Answer. FTE Levels by office for the Office of Airline Information are:

Office	FY 1995	FY 1996	FY 1997
Office of the Director, OAI	RSPA	2	2
Office of Data Administration	RSPA	8	8
Office of ADP	RSPA	5	5
Office of Regulations	RSPA	3	2
Field Office, Alaska	RSPA	2	2
Total		20	19

Question. For all agency staff, including both BTS and OAI, please break out the number of full time equivalent (FTE) positions at each government service (GS) level currently on board. Please display the following information: Office, GS level, number of FTE positions, and average basic compensation.

Answer. For BTS, the FTE positions at each GS level, currently on board are:

Office	GS Level	No. of FTE	Avg. basic compensation
Office of the Director	SES	1	$120,886
	12	2	$48,164
	7	1	$30,075
	5	1	$22,261
Office of Statistical Programs and Services	15	1	$92,035
	14	3	$68,721
	13	2	$55,511
Office of Transportation Studies	15	2	$84,508
	14	1	$62,473
	13	2	$62,560
	12	3	$44,458
	9	1	$30,658

For OAI, the FTE positions at each GS level, currently on board are:

Office	GS Level	No. of FTE	Avg. basic compensation
Office of the Director	15	1	$73,486
	7	1	$30,065
Regulations Division	14	1	$76,000
	13	1	$56,504
Data Administration Division	15	1	$95,531
	13	2	$62,738
	12	1	$43,324
	11	1	$39,645
	7	3	$30,463
ADP Service Division	14	1	$76,591
	13	2	$62,321
Alaska Field Office	15	1	$88,433

Question. For all agency staff, please list by office each job title position, GS grade level, and a synopsis of major responsibilities associated with that job title position.

Answer. The Bureau of Transportation Statistics is currently working with the Department to agree upon a staffing plan for the organization. To date, the staffing plan has yet to be approved.

Office of the Director

- Director EL-4
  Director of the agency.
- Deputy Director SES
  Acts for the Director in his absence; Chief Operating Officer of the Operating Administration.
- Administrative Officer GS-12
  Member of the Bureau's executive staff. Participates with the executive staff in setting the agency's policies, defining its strategic plans, and managing its budget and personnel. Responsible for the design, implementation, and completion of all administrative operations for the agency. Responsible for the operations budget overview and acts as liaison to the Office of the Secretary for overall agency budget responsibilities. Develops guidelines for administrative services. Provides direct supervision and guidance to the Bureau's clerical staff. Provides the agency with procurement guidance and performs necessary procedures for obtaining products or services from outside sources, either from the private sector, state governments, or other federal agencies. Provides personnel guidance and supports the entire agency in fulfilling the Bureau's personnel needs.
- Secretary/Receptionist GS-7
  Lead secretary to the entire agency, the Director, and the Deputy Director.
- Clerk/Staff Assistant GS-5
  Supports the Director and the Deputy Director, and provides back-up for the Bureau's lead secretary and assistance to the Administrative Officer.
- Stay-In-School GS-5
  Provides assistance where needed to the Office of the Director and its staff.
- Senior Advisor for Statistical Policy GS-15
  Principal advisor to the Director on statistical quality, statistical sampling and expansion methods, statistical standards and policy, and related technical issues; oversees interagency coordination on data collection and access issues, data definitions, statistical standards, and similar policy issues; identifies and directs research on the application of statistical methods to transportation planning and analysis; develops a strategy to improve credibility of the Department's statistics.
- Special Assistant for Quality Control GS-12/13
  Directs the development and implementation of total quality management for the Bureau's data-collection programs, interpretive studies, products, and customer services including project/product tracking for the entire Bureau.
- Special Assistant GS-12/13
  Supports the Director only in his administrative needs, special projects, and scheduling. Acts as liaison for the Director between the Bureau and senior DOT

officials, White House officials, other federal senior officials, and high-ranking private industry officers.

Office of Statistical Programs and Services

The Office of Statistical Programs and Services is responsible for developing and operating the Bureau's program to collect, process, and disseminate data that describe the characteristics, performance, use, and impact of the nation's transportation systems. These programs include: 1) the Office of Airline Information, which provides comprehensive financial and market/traffic economic statistics on individual air carrier operations and the air transportation industry; 2) the Data User Services Program, which disseminates the Bureau's statistical products and services to data users and provides them with technical assistance in using data products; and 3) the Transportation Surveys Program of large-scale, national transportation surveys such as the American Travel Survey, which measures the flow and characteristics of passengers using the National Transportation System.

- Associate Director for Statistical Programs and Services GS-15
  Member of the BTS executive staff. Participates with the Director and the Deputy Director in setting the agency's policies, defining its goals, developing its strategic plans, and managing its budget, programs, and personnel. As the Bureau's senior statistician, supervises directly the design, implementation, and operations of the agency's national surveys and other statistical programs. Also develops guidelines for the collection of data by other administrations within the Department, and coordinates the collection of statistics by the Bureau and other DOT administrations with related information-gathering activities conducted by other federal departments and agencies. Directly supervises the Bureau's Data User Services Program to make transportation statistics collected by BTS easily accessible and widely available, and assists other DOT administrations in the dissemination of their statistical information. As supervisor of the Director of the Office of Airline Information, provides policy oversight and guidance for the operations of that office.
- Stay-in-School GS-5
  Supports the Associate Director for Statistical Programs and Services and two of the three subordinate organizational units.

Data User Services

All staff in the program area report directly to the Associate Director for Statistical Programs and Services.

- Data Product Development and Marketing Coordinator GS-13
  Develops and directs a program to identify customers for statistical products, monitor customer needs and technical requirements, and develop new products in response to customer recommendations. Designs and manages the production of statistical products using state-of-the-art technologies, including electronic products on CD-ROM and the Internet. Evaluates BTS products based on customer feedback, keeps abreast of the latest developments in data dissemination technologies, and develops strategies to improve BTS products.

Also develops and implements marketing strategies to promote BTS programs, products, and services.

- Customer Services Program Manager GS-14
  Manages the BTS program to disseminate electronic and printed data products to its customers, and to provide those customers with technical assistance in using the products. Directs the implementation by contractors of all operational procedures for the Bureau's product delivery system, its technical assistance services, and its toll-free 800 statistical information number. Designs and directs the production of directories of data sources, catalogs of data products and services, telephone contact lists, and other reference materials to help customers learn about and acquire transportation data products and services. Coordinates the attendance and staffing of the BTS Exhibit Booth at professional meetings and conferences.
- Data User Training Program Manager GS-13
  Develops and directs a program of seminars, workshops, conferences, and training courses to teach data users what transportation data products and user services are available to them from BTS, DOT, other federal agencies, and sources outside the federal government; what types of information the data products contain; how users can acquire these products and services; and how to use the products. Conducts continuous research to identify current and future data user training needs. Develops educational materials, training exercises and case studies, visual aids, training manuals, and other support materials. Develops and disseminates promotional materials on training activities. Personally conducts training courses as needed.
- Products and Services Information Program Manager GS-14
  Develops, implements, and manages a broad-based information program to inform the widest possible data user community, which includes Congress; federal, state, and local government officials; transportation professionals; public interest groups; and the general public about the Bureau's programs, products, and services. Directs a program of communications with the data user community through written media such as promotional and informational brochures, guides, and bulletins, product announcements, and on-line information systems. Prepares press releases and coordinates media outreach with the Office of the Secretary, the other DOT administrations, and other federal agencies.
- State and Metropolitan Programs Manager GS-13/14
  Develops and manages the Bureau's program to help state departments of transportation and metropolitan planning organizations (MPOs) know about transportation data products, to make transportation planning data products available for use by these MPOs and for the data users in the local service areas, to assist the MPOs in understanding and using data products, and to foster ongoing communication between MPOs and states and the Bureau on matters pertaining to the need for, availability of, and use of statistics. Through these programs, BTS also provides MPOs and states with technical assistance in collecting data through surveys and other methods, disseminating and analyzing data, and using the data in transportation planning and policymaking applications.

- Publications Manager GS-13/14
  Managing editor and production manager for all publications produced by the Bureau including statistical and analytical reports, reference materials, technical documentation of electronic data products, and promotional materials. Managing editor of the Bureau's *Transportation Statistics Annual Report* to the President and the Congress. Designs publications, including tabular, textual, and graphical materials. Edits the publications for proper style, terminology, concepts, and presentation. Coordinates production and printing.
- University Programs Manager GS-13/14
  Develops and manages the Bureau's program to keep colleges and universities apprised of current developments in transportation data products and services, to make data products available for use in teaching and research, to assist faculty and students in understanding and using the data products, and to foster ongoing communication between the colleges and universities and the Bureau on matters pertaining to the availability and use of data. Through these programs, the Bureau also provides technical assistance and materials about collecting, disseminating, analyzing, and using data in transportation planning and policymaking applications.
- Periodicals Editor GS-12/13
  Managing editor of *The BTS Forum*, a monthly publication of product information and customer comments, and *Transportation Statistics Quarterly*, a refereed journal similar in format to *Monthly Labor Review*. Also develops and manages other smaller publications as needed.

Transportation Surveys

All staff in this program area report directly to the Associate Director for Statistical Programs and Services.

- Travel Surveys Program Manager GS-14
  Develops and manages the Bureau's program for providing intermodal passenger travel data via household surveys and other surveys. Plans and executes the American Travel Survey, a $20 million, 80,000 household national survey funded by BTS and conducted every five years by the Census Bureau as part of the Census of Transportation. Also develops specifications for and manages program components of other travel surveys co-sponsored by the Bureau such as the Nationwide Personal Transportation Survey conducted by the Federal Highway Administration.
- Travel Surveys Statistician GS-12/13
  Participates in the technical aspects of the Bureau's American Travel Survey as well as other surveys such as the Nationwide Personal Transportation Survey. Conducts research on alternative survey methods, sample designs, questionnaire designs, computer-assisted telephone interviewing scripts, survey operations, and data processing procedures. Conducts evaluation studies of survey results and makes recommendations for modifications to survey methodology. Develops consistency edits and procedures for inputting missing data. Identifies data from other sources for comparison with travel survey results. Reviews travel survey data for quality and validity. Develops specifications for the content and layout

of the basic record data files from surveys. Participates in development of data products from surveys such as public use files and printed reports.

Office of Airline Information

OAI was transferred from the Department's Research and Special Programs Administration to BTS in May 1995. OAI's mission is to provide the U.S. government, DOT, and other users with uniform and comprehensive financial and market/traffic data on individual air carrier (airline) operations and the air transportation industry. The industry is comprised of 260 U.S. airlines and 215 foreign (non-U.S.) airlines. Over 12,000 paper financial reports and 2,100 computer diskettes/tapes of financial and traffic statistical data are processed annually. OAI also provides customized computer programming support services to DOT users. DOT uses the airline economic data and customized computer services to support policy initiatives, to accomplish safety and international air travel responsibilities, and to meet international treaty obligations. The airline data are a significant component in DOT's intermodal data banks because most interstate and international commercial passengers travel by air. The Director of OAI reports directly to the Associate Director for Statistical Programs and Services.

The Office of Airline Information is comprised of 18 full-time federal employees, three contractor staff, and two additional contractor staff that have been hired but not yet reported for duty, for a total of 23 employees.

- Director, Office of Airline Information GS-15
  The Director manages and leads the program's operations and staff resources. Coordinates OAI's regulations function, data administration function, and data administrative services function to meet DOT program managers' and staff user needs for aviation economic information; maintains a users group to facilitate alignment of OAI activities with user needs. Develops the OAI program budget for staff and financial resources, and represents the request as necessary, including testimony before the Office of Management and Budget and Congress; develops strategies for user reimbursements from federal and non-federal users, and implements user pay strategies; manages expenditures. Acquires and retains a technically competent and diverse staff, and provides for the staff's training and development.
- Management (Administrative) Assistant GS-7
  Secretary to the Office Director. Performs secretarial and administrative work for the entire office.

Regulations Division

- Chief, Regulations Division GS-14/15
  Serves as an authoritative spokesperson and decisionmaker on OAI program requirements for aviation economic information and for the accounting, reporting, and record retention rules and regulations of OAI. Guides and manages the regulation functions of OAI; formulates and implements data requirements and regulation policies and plans, establishes goals and objectives, evaluates results and implements adjustments. Plans, organizes, and conducts OAI's central financial and statistical data-collection program applicable to air

transportation enterprises. Formulates and recommends policy applicable to air carrier accounting, reporting, and record retention systems. Directs the allocation of resources, schedules the work, determines priorities, sets deadlines, and reviews products for adequacy and effectiveness in achieving program goals. In addition, the Chief is able to lead the Office in the absence of the Director, and often is designated by the Director to serve as the Acting Director.

- Systems Accountant GS-14
  Develops and maintains air carrier accounting, reporting, and recordkeeping systems. Performs research and analysis of information systems to collect data more efficiently. Handles major airline information program regulations. Administers the OAI restricted aviation data access program. Prepares responses to motions filed requesting confidential treatment for information filed with OAI.
- Systems Accountant GS-13
  Drafts rules and special information requests to obtain data needed for the Department's regulatory programs. Performs research and analysis of information systems to collect data more efficiently. Prepares the information collection budget and clearance packages for OMB. Drafts reporting instruction letters to carriers. Administers OAI's enforcement function. Administers the handling of requests for OAI information filed under the Freedom of Information Act.

OAI Data Administration Division

- Chief, Data Administration Division (DAD) GS-15
  Serves as an authoritative spokesperson and decisionmaker on airline information data administration matters and manages the DAD. Develops and implements data administration policies and plans, establishes goals and objectives, evaluates results, supervises staff, and makes adjustments as needed. Represents the data administration function in major research and analysis studies of existing and proposed new data-collection systems; provides expert recommendations on data elements, report layouts, Advanced Data Processing (ADP) technical solutions, processing system concepts and plans, written instructions, codes, and other items to minimize DOT and air carrier burdens. The DAD Chief is able to lead the Office in the absence of the Director.
- Supervisory Transportation Industry Specialist GS-13
  Responsible for the receipt, control, computer edit and validation, and dissemination of financial and statistical aviation economic information. Serves as the authoritative spokesperson and consultant on the timeliness, quality, availability, and subject matter of aviation economic records and data banks.
- Air Transportation Specialist GS-13
  Responsible for the recurrent validation and processing of air carrier submissions of T-100(f) data, a major database. Assists in the recurrent validation of the Passenger Origin-Destination (O&D) Survey. Serves as Database Administrator for the Master Coordinate File and various T-100 support files.
- Transportation Industry Specialist GS-12
  Validates and processes air carrier submissions of Passenger O&D Survey data, the Airline Service Quality Performance (Form 234) data, both major databases,

and other miscellaneous data systems such as the OAG Flight Schedule and Import-Export Data. Serves as the central OAI point of contact with the Transportation Computer Center on keypunch and magnetic tape library services.

- Transportation Data Specialist GS-11
  Assembles data and prepares U.S. reports for submission to the International Civil Aviation Organization. Validates and maintains the Aircraft Inventory file. Services requests for the Mileage Calculation Program.
- Air Carrier Report Assistant GS-7
  Handles the receipt and distribution of all air carrier hard copy and tape submissions received by OAI. Maintains logs of the timeliness of recurrent reports in a computer-based tracking system.
- Public Reference Assistant GS-7
  Receives and maintains a variety of specialized aviation financial and statistical reports, publications, and studies in the OAI Public Reference Room. Provides assistance to users seeking information regarding these data.
- Air Transportation Clerk GS-7
  Reviews and processes the reports filed by commuter and small certificated air carriers, which comprise a major database. Enters these data, via a computer terminal, for processing on the mainframe computer. Submits a series of computer runs to create hard copy reports and magnetic tape data banks. Summarizes the air carrier reports for inclusion in the Air Carrier Industry Scheduled Service Traffic Statistics Quarterly.

OAI ADP Services Division

- Chief, ADP Services Division GS-14
  Manages the ADP services and ADP technical functions of OAI; formulates and implements ADP service and ADP technical policies and plans, establishes goals and objectives, evaluates results, and implements adjustments. Manages ADP technical aspects of OAI's computer usage activities; provides expert advice, guidance, counsel, leadership, and direction on software and hardware; and serves as an expert resource for staff, users, and contractors. Manages the development and implementation of new and improved computer systems, programs, and procedures for new data collection, and the replacement and/or change of outmoded systems. Meets with program officials and staff members of DOT programs utilizing aviation economic data, to provide ADP technical advice, guidance, and consultation on the use of computer resources to access and manipulate aviation economic information; also provides aviation economic information subject-matter consultation and advice on the contents of various data banks, and how to manipulate and present data elements to solve users' problems; develops user-oriented analytical tools (programs). The Chief of the ADP Services Division is able to lead the Office in the absence of the Director.
- Computer Specialist GS-13
  Serves as a Senior Computer Specialist. The primary duty of this position is to develop computer systems and computer programs for aviation economic data, to service the Office of the Secretary, the Federal Aviation Administration, and other users.

- Computer Specialist GS-13
  Supports OAI database management activities relating to new systems design and enhancement of existing systems.
- Computer Specialist GS-12/13
  Supports the database management activities relating to new systems design and enhancement of existing systems.
- Computer Specialist GS-12/13
  Supports the database management activities relating to new systems design and enhancement of existing systems.

Alaska Field Office

- Senior Transportation Analyst GS-15
  Onsite manager of the OAI Alaska Field Office. Coordinates DOT policy for airline economic information; clarifies ADP policy for reporting; Alaskan DOT representative for policy, enforcement, and access to restricted release data. Is the point of contact for the Alaskan public to make inquires about the Alaska airline industry's practice and conduct as it pertains to BTS/OAI policies. Serves as OAI's primary point of contact on Alaskan Essential Air Service and aviation economic issues: anticipates and takes timely action to resolve related problems. Maintains highly responsive relationship with state and local elected and appointed officials.
- Transportation Industry Analyst GS-11
  Provides onsite support in the OAI Alaska Field Office. Handles air carrier inquires about DOT reporting matters. Assists in editing the financial and traffic reports filed by Alaska air carriers.

Office of Transportation Studies

The Office of Transportation Studies is responsible for 1) compiling and analyzing information on the extent, condition, performance, use, finance, and impact of the nation's transportation systems; 2) collecting data on freight transportation and on the relationships between transportation and the economy; 3) integrating transportation and related geographic data; 4) linking national transportation data collections, analytical tools, and studies with similar international, state, regional, and local activities; and 5) developing unobtrusive and less burdensome methods for obtaining data on freight transportation and on the relationships between transportation and the economy. The office includes a transportation analysis staff who reports directly to the Associate Director for Transportation Studies, the Geographic Information Services Center with an Assistant Director who reports directly to the Associate Director for Transportation Studies, and the Information Technology Center with an Assistant Director who reports directly to the Associate Director for Transportation Studies.

- Associate Director for Transportation Studies GS-15
  Member of the Bureau's executive staff. Participates with the Director and the Deputy Director in setting the agency's policies, defining its goals, developing its strategic plans, and managing its budget, programs, and personnel. As the Bureau's senior transportation analyst, is responsible for directing the design,

implementation, and operations of the agency's studies of the extent, condition, performance, use, finance, and impact of the nation's transportation systems. Develops guidelines for the compilation and analysis of statistics by other DOT administrations to ensure that the information is accurate, reliable, relevant, and in a form that permits systematic analysis and evaluation. Is responsible for coordinating the Bureau's studies with other DOT administrations and related activities of other federal departments and agencies. Is also responsible for directing the collection and analysis of statistics on transportation related to businesses and on the economic impacts of transportation. Provides direct supervision of the transportation analysis staff and provides senior policy oversight and guidance for the Geographic Information Service Center and the Information Technology Center.

- Special Assistant GS-9
  Special Assistant with a technical analysis background to support the Associate Director for Transportation Studies and the Associate Director's three subordinate organizational units.
- Stay-in-School GS-5
  Supports the Associate Director for Transportation Studies and the three subordinate organizational units.
- International Data Program Manager GS-12
  Designs and manages the Surveys of Domestic Transportation of Foreign Trade, coordinates DOT participation in the National Foreign Trade Data Base, develops cooperative statistical activities with international agencies, directs joint activities with the statistical agencies of Canada and Mexico.
- Chief Engineer GS-13
  Directs the development of databases on the extent and condition of transportation infrastructure; designs and conducts or manages studies of relationships between transportation use and condition for the *Transportation Statistics Annual Report*, as well as for the Travel Model Improvement Program and studies of cross-modal analysis. Provides the overall operating administration with some procurement services and serves as the Contracting Officer's Technical Representative (COTR) on some major operating administration contracts.
- Stay-in-School GS-5
  Supports the Associate Director for Transportation Studies and the three subordinate organizational units.
- Freight Data Program Manager GS-14/15
  Develops and manages the Bureau's program for providing intermodal freight transportation data through shipper surveys, carrier surveys, vehicle user surveys, data acquisition from Intelligent Transportation Systems, and other sources. Plans and executes the Commodity Flow Survey, a $17 million national survey of 200,000 business establishments funded by the BTS and conducted every five years by the Bureau of the Census as part of the Economic Census. Also develops specifications for and manages support of enhancements to other components of the Economic Census, such as the Truck Inventory and Use Survey, and coordinates DOT and Census activities on related annual surveys.

- Urban and Regional Development Analysis Program Manager GS-13/14
  Designs and conducts or manages data collection and studies related to transportation planning, urban land use, regional economic development, and employment impacts, particularly to support the Travel Model Improvement Program and studies of the economic benefits of transportation investments.
- Senior Transportation Analyst GS-15
  Directs the development of analytical tools and performance measures and coordinates interpretive studies that transcend BTS subject areas, particularly the congressionally mandated *Transportation Statistics Annual Report*. Directs the Bureau's participation in the Travel Model Improvement Program, the National Transportation System Initiative, departmentwide strategic studies of research needs, and the development of a system of national transportation performance measures.
- Environmental Analysis Program Manager GS-14/15
  Directs the development, evaluation, and compilation of environmental databases that can be linked to the National Transportation System; designs and conducts or manages studies of relationships between transportation and air quality, water quality, noise, and solid waste for the *Transportation Statistics Annual Report*, as well as for the Travel Model Improvement Program and studies of full social costing in cross-modal analysis.
- Transportation Energy Analysis Program Manager GS-13/14
  Designs and conducts or manages studies of relationships between transportation activity, energy consumption, transportation costs, and environmental conditions, particularly to support the Travel Model Improvement Program and to develop models that are mutually acceptable to DOT and the Department of Energy.

Geographic Information Service Center

The Geographic Information Service Center is responsible for the collection, analysis, maintenance, and display of geographic data describing national transportation infrastructure and services, the movements of goods and people, and the spatial distribution of transportation system performance and impacts. The GIS Center was established in FY 1995 with a core capability of technical staff and equipment. During FY 1996, this core staff is being enhanced with essential technical capabilities necessary to ensure the smooth operation of the Center, provide anticipated geographic services for the National Transportation System and the Office of Emergency Transportation, and meet the Department's interagency responsibilities as transportation theme manager for the National Spatial Data Infrastructure (NSDI). In FY 1997, additional staff are needed to support the analysis and presentation of the new data on multimodal travel emerging from the Commodity Flow and American Travel Surveys, to develop integrated tools for analyzing the condition and performance of the national transportation system, and to meet the expected increase in public demand for transportation data through the NSDI.

Without full staffing for the Geographic Information Service Center: the Department will not be able to fully meet its obligations as transportation theme manager for the NSDI; the Bureau will be severely limited in its ability to develop appropriate tools to integrate spatial data and transportation network models to analyze national transportation system condition and performance; the Bureau will be forced to make tradeoffs among a number of equally important activities that are expected to demand increasing amounts of staff resources, including maintenance and enhancement of national transportation atlas databases, GIS support to other DOT Program Offices; and dissemination of spatial transportation data and map products to the public.

- Assistant Director for Geographic Information Services GS-15
  Manages GIS Center staff and product development; oversees contractor support; coordinates the Bureau's GIS activities throughout DOT and with other federal agencies; represents DOT on subcommittees of the Federal Geographic Data Committee.
- Transportation Applications Manager GS-14
  Senior analyst/data user who identifies GIS application and data requirements, particularly to the GIS support of cross-modal comparisons and cost-benefit methods; specifies and manages activities related to analyses of new National Transportation System options; identifies GIS research needs; specifies user interface requirements for GIS technology.
- Spatial Data Manager GS-14
  Manages the Bureau's spatial database library and National Transportation Atlas master databases; develops and administers procedures to update and enhance the master databases; oversees documentation and standards for database formats; and serves as technical advisor for spatial data standards.
- Transportation Planner GS-12
  Conducts geographic analyses and develops thematic maps in support of various studies undertaken by the Bureau; assists in the development, maintenance, and enhancement of databases in the Bureau's spatial database library; assists in the development of new geographic information products for the Bureau customers.
- GIS Analyst GS-9/11/12
  Provides production and research support for all GIS Center staff, provides data entry support for the GIS systems managers, and is an entry level position for training and promotional opportunities.
- Network Model Specialist GS-12/13
  Expert in transportation network modeling and the application of network analysis tools to transportation problems; develops tools to facilitate national transportation policy studies and transportation emergency response; technical advisor to the Transportation Model Improvement Program on network models.
- Map Production Specialist GS-11/12
  Senior graphics design specialist who manages map production and develops strategies for the development of new visualization methods.
- Network Model Specialist GS-12/13
  Expert in transportation network modeling and the application of network analysis tools to transportation problems; develops tools to facilitate national transportation policy studies and transportation emergency response; technical advisor to the Transportation Model Improvement Program on network models.

Information Technology Center

The staff of the Information Technology Center (ITC) support physical communications between DOT and both information vendors and users, provide electronic library and archiving services, and operate a "test bed" for new data acquisition and dissemination technology. The ITC will also support modernization of distribution services of the Bureau's recently acquired Office of Airline Information. Without these positions: the Department would have to depend on other agencies for the communication of data to and from DOT and for the archival storage of transportation data at a time when others in DOT are asking the Bureau to provide such functions (such as for the Travel Model Improvement Program at the request of the Office of the Secretary, the Federal Highway Administration, and the Federal Transit Administration); the Bureau will not be able to experiment directly with new technology for data acquisition from Electronic Data Interchange systems, Global Positioning Systems, Intelligent Transportation Systems, and other systems that would allow the collection of more data with greater accuracy and coverage at reduced cost, reduced respondent burden, and greater timeliness of reporting; the ITC will not be able to maintain its most popular product, the State and Metropolitan Analysis for Regional Transportation (SMART) CD-ROM project.

- Assistant Director for Information Technology GS-12
  Responsible for coordinating the application and development of information technologies across all units within the Bureau of Transportation Statistics; manages ITC staff, oversees contractor support, coordinates information technology and research activities with other modal administrations, other federal agencies, and state and local planning organizations; represents DOT in policy discussions related to the National Information Infrastructure; serves as principal advisor to the Director on all issues related to the application of computer information systems.
- Electronics Services Manager GS-12/13/14
  Designs and manages contract operation of electronic information services -- including the Internet, electronic bulletin board, and fax servers -- and oversees the content of the Bureau and OAI areas on the Internet and commercial services.
- Electronic Records Coordinator GS-12/13
  Library science specialist who identifies data archival needs, manages the Bureau's data archival programs covering DOT and the transportation community, represents the Bureau in the development of the transportation thesaurus and other library aids, manages creation and maintenance of the *Transportation Data Element Dictionary*, and manages BTS's and OAI's public reading rooms.

ORGANIZATIONAL STRUCTURE

Question. The division of responsibilities between the Office of Statistical Programs and Services and the Office of Transportation Analysis is somewhat unclear. Please list the primary functions and staff positions (by position title) associated with each office.

Answer. In general, the Office of Statistical Programs and Services collects and disseminates data while the Office of Transportation Studies analyzes the data and develops interpretive reports.

The Office of Statistical Programs and Services designs and manages surveys; collects data from airlines and motor carriers; using the resulting data, produces CD-ROMs, books of tables, and other media; develops or obtains software to access data on electronic media; manages product distribution; provides customer support and training; maintains a public information service; and obtains customer feedback.

The Office of Transportation Studies researches and writes reports, prepares testimony, produces other interpretive products, and performs analyses through its analytical staff, its Geographic Information Systems Center, and its Information Technology Center. Interpretive products include reports, testimony, maps and other graphic illustrations, and analytical methods for understanding the state of transportation and its consequences.

The primary functions and staff positions (by position title) associated with each office are detailed fully in the answer to the previous question.

Question. Is the Office of Airline Information technically part of the Office of Statistical Programs and Services, or is it a separate entity? If OAI is part of the statistical programs office, please discuss the budgeting and accounting ramifications of utilizing two separate funding streams within the one office (i.e., highway trust funds and general funds or aviation trust funds).

Answer. OAI is part of the Office of Statistical Programs and Services. Because of the separate funding streams, BTS maintains its contract authority funds and budget authority funds in separate accounts. Only expenses attributable to the OAI program are charged against the OAI appropriation. If OAI receives aviation trust funds, they will be administered separately as is now the case and BTS will work closely with the Federal Aviation Administration as it does now with the Federal Highway Administration for its highway trust funds.

NEW BTS DIRECTOR

Question. Director Lakshmanan's four-year term expires in June 15, 1996. Please describe the search/nomination process that will be undertaken to determine and place his successor.

Answer: Section 111(b)(2) of Chapter I of title 49, USC, requires that "(t)he Director [of the Bureau] shall be appointed from among individuals who are qualified to serve as the Director by virtue of their training and experience in the compilation and analysis of transportation statistics." Both the Secretary and the White House Personnel Office will search out and review candidates for the position of Director, a Presidential appointment. When agreement is reached on a candidate, the nomination will be forwarded to the Senate. In view of the few legislative days remaining in this Congress, we do not anticipate a replacement for Dr. Lakshmanan prior to the convening of the next Congress.

GENERAL PROVISIONS

Section 324 of Public Law 104-50 authorizes the Bureau of Transportation Statistics to sell data products in order to defray costs incurred. The proceeds are credited to the Federal-aid highways account for the purpose of reimbursing BTS for such expenses, and these offsetting receipts are not subject to the Federal-aid highways obligation limitation.

Question. To date, has BTS utilized their authority to sell data products? If not, why not?

Answer. BTS has begun selling its aviation data products under authority of Section 334 of Public Law 104-50.

Question. Please list all CD-ROM, computer disk format, and book format data products that the agency now offers (categorize these products by media type). What are the raw production costs and per unit shipping costs for each product? (When calculating production costs, exclude the more intangible costs such as data research and compilation, or customer outreach; include only printing, pressing, data purchasing, and other "hard" costs.)

Answer. The following table contains products currently available from the BTS Product Distribution Center, excluding products that were produced before 1995 or that have been superseded by more current versions or editions. The cost estimates are based on "hard" costs, such as publication design and layout, printing, CD-ROM replication, data purchasing, and custom software development.

Current BTS Products and Associated Production Costs

Product Title	Total Cost	Quantity Produced (to date)	Per Unit Shipping Cost
Compact Disc-Read Only Memory (CD-ROM)[1]			
Nationwide Personal Transportation Survey: 1983 and 1990	$10,432	5,000	$1.47
TransBorder Surface Freight Data: April 1993-March 1995	$4,099	2,000	$1.47
Transportation Data Sampler-3	$16,906	10,000	$1.47
National Transportation Atlas Databases: 1996	$4,950	1,500 DOS 1,000 UNIX	$1.47
State and Metropolitan Analysis for Regional Transportation (SMART)[2]	$150,000	4,500	$1.47
Census Transportation Planning Package (CTPP) Urban Element (33 discs)[3]	$431,700	66,000 (2,000 copies each disc)	$1.47
Topologically Integrated Geographic Encoding and Referencing (TIGER) System (6 discs)[4]	$69,000	6,000 (1,000 copies each disc)	$1.47
Printed Reports/Products			
Transportation Statistics Annual Report 1995	$50,935	8,000	$3.00
National Transportation Statistics, 1996[5]	$64,585	3,500	$3.00
Worldwide Government Directory, 1995	$20,730	5,000	$3.00
Federal, State, and Local Transportation Financial Statistics, 1995	$6,520	2,500	$1.50
Telephone Contacts, 1996	$4,665	8,100	$ .50

Transportation Statistics In-Brief, 1996	$5,125	15,000	$ .50
Directory of Data Sources, 1995	$30,210	5,000	$5.00
Internet Starter Kit, 1995 -- Report Video	$17,550 $18,000	5,000 4,000	$1.50
Transportation Expressions	$13,070	2,500	$3.00
Transportation Acronym Guide	$6,015	2,500	$ .75
Implications of Continuous Measurement for the Use of Census Data in Transportation Planning	$11,700	500	$3.00
Implications of Continuous Measurement for the Use of Census Data in Transportation Planning: Executive Summary	$1,200	1,000	$ .75

[1] All flexible diskette products have been superseded by CD-ROM and Internet-compatible products, including the TransBorder Surface Freight Data, National Transportation Statistics, Transportation Expressions, and Transportation Acronyms diskettes. These products are currently available in either a CD-ROM or Internet-compatible format.

[2] The total cost for the SMART CD-ROM includes the development of customized software, multimedia development, and scanning/optical character recognition costs for data capture and conversion.

[3] The total cost expended on the CTPP Urban Element covers custom software development (TransVU version 2.0) as well as all costs related to printing, mastering, and replication.

[4] TIGER production costs include custom data processing of the TIGER/Line files for inclusion of the traffic analysis zone (TAZ) boundaries defined by Metropolitan Planning Organizations.

[5] A 3,500-copy reprint is expected later this fiscal year.

Question. For the record, outline the agency's guidelines for the sale of data products. For which products is it appropriate to charge a fee, and for which is it not? Should single copies be free, but multiple copies be sold? What other variables should be considered when establishing a data products sales plan?

Answer. For consistency, BTS has maintained the pricing scheme for aviation products that existed before BTS assumed responsibility for OAI. Because these products are sold primarily by annual subscription, any changes will not be made until the end of the product year. BTS does not currently charge for its other products and is considering how to create a pricing structure that is both fair and practical. While we have not yet finalized any policies, the questions we are considering include: what costs are recoverable, how do we ensure equitable access, what types of data should be disseminated free, should any groups receive data free, how does electronic dissemination affect the pricing structure, what overhead costs would we incur by charging, and how do we work with (instead of compete against) the private sector. To resolve these issues, BTS is working with senior DOT staff as well as BTS's Advisory Council, whose membership includes the chief economist of Dun & Bradstreet, the former U.S. Commissioner of Labor Statistics, and other individuals who are very knowledgeable on these issues.

The fiscal year 1997 budget request includes a new general provision allowing BTS to "enter into grants, cooperative agreements, and other transactions ... to collect data on the impact of natural disasters on transportation systems" (with a 5 percent of overall annual resource limitation on such data collection).

Question. Why has the agency requested this general provision? How was the need for this particular type of data compilation identified?

Answer. Transportation data and analysis can be crucial when disasters occur. Immediately following the Northridge earthquake, the Bureau undertook to supply transportation planners in Los Angeles with journey-to-work data from the 1990 census and other data relevant to planning for traffic management in that emergency. Although the Bureau does not have responsibility for responding to emergencies per se, the data we provided (a CD-ROM, pressed and ready for delivery to Los Angeles within one week of the earthquake) was an essential part of the emergency response by Los Angeles and California authorities.

BTS recognizes that disasters of this type do substantial damage to transportation facilities, and so provide "natural laboratories" to study the effects on freight movement, employment, retail sales volume, and other measures of the value of transportation to a regional economy. Thus, BTS undertook funding for a consortium of universities and others in the Los Angeles area to collect data during and after the recovery period and perform the analyses required to establish the effects of degraded transportation on the region. This work has resulted in a number of papers, and in a symposium held in Los Angeles in April 1996.

Since the Bureau was not given grant/cooperative agreement authority in ISTEA, we were forced to use contract authority and interagency agreements to fund the research efforts at the universities. This took an inordinate amount of time: the earthquake was in January 1994, and the money was not available to the research sponsors until late summer of 1994. This meant that the data collection was largely retrospective, rather than concurrent with the economic dislocations under study. If the Bureau had grant authority, funding could have been available to recipients within a week or two after the earthquake. We will never know how much more thorough and accurate this data collection would have been if the researchers had been able to begin work sooner.

In our view, it is well within the Bureau's mandate to provide data useful to emergency planners, and to use the unfortunate occasion of disasters affecting transportation facilities and patterns to learn more about the benefits and costs of transportation as they affect the lives and businesses affected. The data provided will be of use locally; the research done will be useful nationally. The provision was narrowly drafted since the question of grant/cooperative agreement authority for the Bureau was felt to be more appropriately addressed during the reauthorization process.

We, of course, understand that the actual use of the new authority is dependent upon the occurrence of a natural disaster substantially affecting transportation.

Question. Who are the targeted customers or end users of the data products resulting from this natural disasters data compilation effort?

Answer. If we were to obtain the grant authority necessary to provide data needed for state or local decisionmaking during an emergency, the customers and end users would be state and local transportation planners and general government. The beneficiaries would be the people and the businesses in the area, and their customers.

If we were to obtain the grant authority needed to collect information about the transportation-related consequences of the natural disaster, the customers and end users would again be the transportation planners and general government units of the areas in question, as well as the transportation community at large.

REAUTHORIZATION ISSUES

Question. The six-year ISTEA authorization lapses at the end of fiscal year 1997. What are BTS's primary objectives for the reauthorization process?

Answer. The Bureau was charged by Congress with the following missions: 1) compiling transportation statistics; 2) implementing a long-term data-collection program; 3) issuing guidelines; 4) coordinating collection of information; 5) making statistics accessible; and 6) identifying information needs. We do not anticipate requesting any change in the basic mission of BTS, although more "technical" amendments such as adding grant and cooperative agreement authority, as noted above, are under consideration.

We are a part of the Department's planning process for reauthorization. We expect to attend several of the regional meetings sponsored by the Secretary to explore with our constituency the needs and opportunities presented by reauthorization. We have not as yet developed any specific reauthorization proposals to elaborate on the missions listed above. We expect funding for the Bureau under the next federal highway bill to be commensurate with our successes in fulfilling our missions under ISTEA.

Question. Please describe what efforts are planned or underway to make these objectives known to the House Transportation and Infrastructure Committee and the Senate Environment and Public Works Committee.

Answer. We expect to present our proposals for reauthorization as a part of the Administration's overall reauthorization proposals.

Question. What funding mechanism is considered by BTS to be the most desirable?

Answer. We have had no difficulties with the funding mechanism now in place, the Highway Trust Fund. If we are able to access the Airport and Airway Trust Fund to support OAI for FY 1997, we would expect to seek continued access to that funding source during reauthorization, if appropriate.

DATA SOURCES

Question. Where does BTS gather its data? Is it all from other government agencies? Please list all source agencies, and what types of data have been collected from each.

Answer. BTS gathers data from four basic sources: major surveys, carrier reports, reports from other government agencies, and private vendors. The Bureau's two major surveys, the Commodity Flow Survey and the American Travel Survey, are conducted by the Bureau of the Census under interagency agreements. Carrier reports include filings of financial and operating data by airlines and large motor carriers. All carriers involved in international trade or their agents provide customs declarations to Customs, some of which are processed for BTS by Census to measure surface transborder commodity movements. Government agency reports include data files and documents provided to BTS for inclusion in its products or to publish. Most of these reports are provided by other federal agencies, although a number of state and local agencies offer their products for inclusion on the BTS Internet site. Private data sources include the subscriptions described in the answer to the next question and publications of trade associations and other groups.

BTS relies on existing data sources whenever possible to avoid duplication. The range of agency data sources is as broad as the Bureau's mandated subject areas, covering the extent, use, condition, and performance of the transportation system, the system's economic consequences, safety, energy consumption, and the system's environmental consequences. BTS uses most of about 500 reports and data files listed in the Bureau's current *Directory of Transportation Data Sources*.

Question. Does BTS have to buy any of its data? If so, how are these costs negotiated?

Answer. BTS currently purchases data from two private sources: economic data and analyses from DRI/McGraw Hill, and maritime data from the Port Import Export Reporting Service (PIERS). In both cases, BTS consolidated individual subscriptions of the Modal Administrations to achieve economies of scale and remove barriers to use of those sources by analysts from throughout DOT. The DRI/McGraw Hill contract is negotiated for the Bureau by the Federal Railroad Administration, and the PIERS data is negotiated for the Bureau by the Maritime Administration. These agencies have had the longest relationships with the vendors in question and know best how to leverage the most cost-effective subscriptions. Through the consolidated subscription for the DRI/McGraw Hill data, BTS saved DOT $70,000. In the case of PIERS, BTS saved DOT about $150,000 by this investment in data.

CONTRACTS AND AGREEMENTS

Question. Define and differentiate between "contracts" and "agreements" with government and outside vendors.

Answer. "Contracts" are defined as services rendered from vendors outside of the government. "Agreements" are defined as services rendered from vendors within the federal government. Some "contractors" may loosely term their "contracts" as "agreements," but for procurement purposes this is not correct.

Question. Please list the vendor, dollar amount, status, and provide a description of services, for all BTS's contracts and agreements with Federal agencies and outside vendors for fiscal years 1995 (actual), and 1996 (ongoing and planned). Please indicate whether the services directly support a specific transportation study or project. Include all contracts over $50,000 (showing an aggregate total for each fiscal year for smaller contracts).

Answer. [See table "Contracts and Agreements for FY 1995 and FY 1996" in Excel file "contract.xls."]

Question. According to BTS's FY 1996 budget justification, these contracts and agreements should total $11,482,455 in FY 1995, and $14,608,200 in FY 1996 (budget object classification "Other Services"). If the above-listed contracts and agreements do not total to these amounts, please explain in detail why they do not. For instance, does any portion of these totals represent the amount spent on operations and maintenance of equipment?

Answer. The above-listed contracts and agreements total the amounts shown in the question.

Question. What is the total amount budgeted for contracts and agreements in FY 1997? To the greatest extent possible, please detail the planned contracts, vendors, amounts, and purposes which BTS plans for fiscal year 1997 (in the same manner that this information was displayed in the second question above).

Answer. [See table "Contracts and Agreements Planned for FY 1997" in Excel spreadsheet, "contr97.xls]

REQUEST FOR COMMODITY FLOW SURVEY REVISION

In an October 13, 1995 letter to BTS Director Lakshmanan and Census Bureau Director Riche, the Chemical Manufacturers Association (CMA) requested that the Census Bureau and BTS consider revising the 1997 Commodity Flow Survey to include additional information specifically identifying hazardous materials shipments using the material's "UN" or "NA" Identification Number. CMA asserts that the proposed modification to the Commodity Flow Survey will assist CMA members in evaluating the risks associated with distribution of hazardous products, with the goal of improved transportation safety for chemical products.

Question. Have BTS and the Census Bureau decided whether or not to modify the 1997 Commodity Flow Survey per CMA's request? What are the possible advantages and drawbacks of making this proposed modification?

BUREAU OF TRANSPORTATION STATISTICS
Contracts and Agreements for FY 1995 and FY 1996

CONTRACTS - *outside government*

Vendor	Brief Description of Services	Status	Amount FY 95	Amount FY96
Advanced Management Technology	Basic contract- 1) software and database design and database development, 2) LAN design, implementation, and administration, 3) data communications support, 4) LAN -based storage and CD-ROM data archival technologies, 5) information resource management planning support, 6) software and data product distribution and customer assistance	Ongoing	$1,678,334	$345,786 $1,369,028
National Academy of Sciences (NAS)	Transportation Research Board (TRB) - 1) support a national and international transportation statistics program for compiling, analyzing, and publishing a comprehensive set of transportation statistics, 2) encourage and promote the establishment and implementation, in cooperation with the Modal Administrators, the states, and other federal officials, of a comprehensive, long-term program for the collection and analysis of data relating to the performance of the national transportation system, 3) provide support for development of guidelines for the collection of information by DOT in order to ensure that such information is accurate, reliable, relevant, and in a form that permits	Ongoing	$260,000	$257,500

BUREAU OF TRANSPORTATION STATISTICS
Contracts and Agreements for FY 1995 and FY 1996

Vendor	Brief Description of Services	Status	Amount FY 95	Amount FY96
	systematic analysis, 4) provide support for coordinating the collection of information by DOT with related information-gathering activities conducted by other federal departments and agencies and collecting appropriate data not gathered elsewhere, 5) provide support for making the statistics published readily accessible, 6) provide support for identifying information that is needed but which is not being collected, reviewing such needs with the Advisory Council on Transportation Statistics, and making recommendations to appropriate DOT research officials concerning extramural and intramural research programs.			
National Academy of Sciences	Mandated in section 6008 of ISTEA. Work performed by the Committee on National Statistics CNSTAT and TRB, both of NAS. An expert panel of statisticians and transportation professionals are reviewing BTS's relationship with the other modes, other federal agencies, state and local governments, and the private sector to recommend what should be the most effective role BTS can play in improving the quality of federal transportation statistics.	Ongoing	$500,000	

BUREAU OF TRANSPORTATION STATISTICS
Contracts and Agreements for FY 1995 and FY 1996

Vendor	Brief Description of Services	Status	Amount FY 95	Amount FY96
Camber Corporation	Basic GIS technical support, hardware and software purchases, training and applications development on an as needed basis. Provides the principal GIS software tools for BTS. This contract allows BTS to modify software packages to meet specific needs quickly, using the technical expertise of the software developers themselves.	Ongoing	$100,000	
Advanced Management Technology	Analysts - 1) issue identification; 2) transportation satellite accounts; 3) national freight transportation demands; 4) consumer expenditures on transportation; and 5) transportation and transportation land use.	Ongoing		$630,185
Advanced Management Technology	Data Users Services - 1. Product Development (primarily electronically based products) including software development, scanning/OCR work, graphics, CD-ROM mastering and production, printing costs, and related product-development expenditures. Printed reports are done through the Volpe Center (listed below). The CD-ROMs currently anticipated under this delivery order are: a) Census Transportation Planning Package, b) International Travel and Tourism Data Sampler, c) National Transportation Atlas Databases: 1996 CD-ROM, d) Nationwide Personal	Ongoing		$1,132,849

BUREAU OF TRANSPORTATION STATISTICS
Contracts and Agreements for FY 1995 and FY 1996

Vendor	Brief Description of Services	Status	Amount FY 95	Amount FY96
	Transportation Survey CD-ROM, e) Transportation Data Sampler, f) Transborder Surface Freight Data CD-ROM, g) Traffic Safety CD-ROM: 1996. This area also supports some Internet development work and supports Data User Services' training activity requirements. 2. Customer Service Activities - operations and staff at the Product Distribution Center (PDC) including all distribution efforts and related costs, telephone support activities, and any other costs related to the customer service aspect of Data User Services' work. 3. Database Development and Maintenance - including the PDC's customer database and the marketing database, targeted at key transportation contacts.			
Advanced Management Technology	Information Technology Center (ITC) Support - 1) software design, development and installation, 2) product design, development, installation and distribution, 3) ITC technical support.	Ongoing		$572,000
			$2,538,334	$4,307,348

BUREAU OF TRANSPORTATION STATISTICS

Contracts and Agreements for FY 1995 and FY 1996

AGREEMENTS - *within the government*

Vendor	Brief Description of Services	Status	Amount FY95	Amount FY96
Bureau of the Census U.S. Department of Commerce	American Travel Survey - Large-scale national survey of long-distance travel (trips of 100 miles or more) by Americans during 1995. Sample is comprised of 80,000 households which are interviewed quarterly to gather information on their trips, as well as the social, economic, and demographics characteristics of the households and the travelers. The survey is being conducted by the Bureau of the Census as a component of the Census of Transportation.	Ongoing	$3,000,000	$3,600,000
Volpe National Transportation Systems Center RSPA/DOT	Analytical support for the *Transportation Statistics Annual Report;* support of the Commodity Flow Survey design and evaluation.	Ongoing	$560,000	$830,000
Maritime Administration/DOT	Port Import Export Reporting Service (PIERS) of the Journal of Commerce, which compiles data from ship manifests submitted to Customs. This is a joint subscription with the Maritime Administration to encourage use of PIERS by offices throughout the Department as an effort to maximize utilization of private-sector data sources.	Complete for 95	$115,000	$117,300

BUREAU OF TRANSPORTATION STATISTICS
Contracts and Agreements for FY 1995 and FY 1996

Vendor	Brief Description of Services	Status	Amount FY95	Amount FY96
Defense Evaluation Support Activity (DESA), U.S. Department of Defense	DESA processes electronic copies of material supplied by BTS and develops a program that will allow users to search, retrieve, and view documents on the respective subjects. This contract also produces multimedia CD-ROMs: 1) Safety, 2) Travel Demand Forecasting.	Complete	$230,000	
Bureau of the Census U.S. Department of Commerce	Spatial Data on CD-ROMS - BTS is sponsoring the 1995 update of the Census Bureau's topologically integrated geographical encoding and referencing (TIGER) Line Files. These are spatial data files of boundaries, features (e.g., rivers), geographic areas and their codes, road and highway networks that are used with GIS software to draw maps with computers. BTS sponsored this version so that Census will add traffic analysis zone boundaries to the database, the same zones used to tabulate the Census Transportation Planning Package (CTPP), which BTS also produced on CD-ROM. As a result, metropolitan transportation planners will be able to use the TIGER line files to map the CTPP data BTS is giving them on other CDs.	Complete	$121,000	
Oak Ridge National Laboratory U.S. Department of Energy	1) BTS National Transportation Atlas Database (NTAD) planning and support, 2) NTAD network updates	Ongoing	$2,000,000	$1,055,000

Vendor	Brief Description of Services	Status	Amount FY95	Amount FY96
	and enhancements, 3) research for TSAR 1997.			
Federal Highway Administration U.S. Department of Transportation	Trucks Involved in Fatal Accidents - shared expense with the Federal Highway Administration (FHWA) (Office of Motor Carriers), the National Highway Traffic Safety Administration, BTS, and other private industry sources. The products are a database and a fact book on the subject. BTS receives an electronic version of the database and factbook for distribution on the Internet and by CD-ROM. The work is done by the University of Michigan Transportation Research Institute.	Ongoing	$50,000	
Bureau of the Census U.S. Department of Commerce	Surface Transborder Commodity Data program - produces freight flow data by commodity type and by mode of transportation (rail, truck, or pipeline) for U.S. exports and imports to and from Canada and Mexico. The purpose of this program is to provide information needed to monitor increased traffic associated with the North American Free Trade Agreement and provide border states with information to support transportation planning. The Customs Bureau collects the basic commodity data, and the Census Bureau processes the data into foreign trade statistics. BTS contracts with Census	Ongoing	$358,000	$180,000

BUREAU OF TRANSPORTATION STATISTICS
Contracts and Agreements for FY 1995 and FY 1996

Vendor	Brief Description of Services	Status	Amount FY95	Amount FY96
	for the extra cost of processing the mode split information.			
National Academy of Sciences	Continued CNSTAT support - each of the 11 federal statistical agencies contributes an annual amount to help CNSTAT conduct its business on behalf of good statistics in the federal government.	Complete	$50,000	
Federal Highway Administration U.S. Department of Transportation	Continuous Measurement - Supported with FHWA for an evaluation of the implications of Continuous Measurement for the uses of decennial census data in transportation planning. Continuous Measurement is a program of ongoing monthly national surveys that Census plans to implement to replace the federal programmatic data (including commuting data) traditionally collected in the decennial census. The program is scheduled to begin in parallel with the 2000 census data collection, then replace it in 2010.	Complete	$150,000	
Bureau of the Census U.S. Department of Commerce	Place-of-Work Coding Improvement - This project provides specifications for reviewing and correcting census coding problems with 1990 census commuting data tabulated in the CTPP to improve that product and for the 2000 census.	Ongoing	$300,000	
Federal Railroad Administration	DRI/McGraw Hill, an economic forecasting and data	Ongoing	$50,000	$36,000

BUREAU OF TRANSPORTATION STATISTICS
Contracts and Agreements for FY 1995 and FY 1996

Vendor	Brief Description of Services	Status	Amount FY95	Amount FY96
U.S. Department of Transportation	service. BTS provides a DOT-wide subscription for basic publications as an effort to maximize utilization of private-sector data sources.			
Federal Highway Administration U.S. Department of Transportation	Decennial Census Data - Provides support for the National Conference on Census Data for Transportation Planning to be held at the end of April 1996. Jointly sponsored by FHWA, BTS, TRB, and the Federal Transit Administration. Conference will be a forum for state and metropolitan transportation planners, DOT officials, and Census Bureau staff to discuss the use of 1990 census data and make recommendations for improvements in 2000.	Complete	$30,000	
Bureau of the Census U.S. Department of Commerce	National Survey of Homeless Assistance Providers and Clients. BTS was asked to contribute to a government-wide census of the homeless population. Homeless Americans tend to congregate at public transportation facilities, such as railroad stations, bus terminals, and	Ongoing	$50,000	

BUREAU OF TRANSPORTATION STATISTICS
Contracts and Agreements for FY 1995 and FY 1996

Vendor	Brief Description of Services	Status	Amount FY95	Amount FY96
	airports. Programs and services at all levels of government that alleviate homelessness therefore improve conditions for employees and customers of transportation providers. The census will provide information needed by local, state, and federal providers of programs and services.			
Volpe National Transportation Systems Center RSPA/DOT	Statistical information assistance, technical assistance, assistance with BTS exhibit booth at professional conferences, various and periodic publications to provide statistics and advice on how to obtain statistics, technical TSAR assistance (limited),assistance as needed for small periodic projects, Acronym Guide, *Transportation Expressions*.	Ongoing	$655,000	$900,000
Volpe National Transportation Systems Center RSPA/DOT	GIS support relating primarily to spatial database development, spatial data standards, and logistics support for BTS GIS activities.	Ongoing	$400,000	$375,000
Federal Highway Administration U.S. Department of Transportation	Provides access for BTS to the University of Tennessee's applications tools for ARC/INFO in order to assist BTS in editing spatial databases and to develop a viewing and extraction program that we can distribute with our National Transportation Atlas CD-ROM.	Ongoing		$30,204
			$8,119,000	$7,123,504

BUREAU OF TRANSPORTATION STATISTICS

Contracts and Agreements for FY 1995 and FY 1996

Vendor	Brief Description of Services	Status	Amount FY95	Amount FY96
	Subtotal Contracts		$2,538,334	$4,307,348
	Subtotal Agreements		$8,119,000	$7,123,504
	Aggregate Subtotal of Contracts and Agreements under $50,000		$825,121	$3,177,348
	Total:		$11,482,455	$14,608,200

BUREAU OF TRANSPORTATION STATISTICS

Contracts and Agreements Planned for FY 1997

AGREEMENTS - *within the government*

Vendor	Brief Description of Services	Amount FY 1997
Bureau of the Census U.S. Department of Commerce	American Travel Survey - ongoing efforts	$2,400,000
Volpe National Transportation Systems Center Research and Special Programs Admin/DOT	Analytical Support - ongoing efforts Commodity Flow support - ongoing efforts Statistical Information Assistance - ongoing efforts GIS support - ongoing efforts	$3,000,000

Oak Ridge National Laboratory U.S. Department of Energy	BTS National Transportation Atlas Database - ongoing efforts Annual Report support - ongoing efforts	$3,000,000
Federal Railroad Administration, DOT Federal Highway Administration, DOT Maritime Administration, DOT	DRI/McGraw Hill - ongoing efforts	$40,000
Maritime Administration U.S. Department of Transportation	Port Import Export Reporting Service (PIERS) - ongoing efforts	$120,000
Bureau of the Census U.S. Department of Commerce	Commodity Flow Survey - ongoing efforts	$7,000,000
	Subtotal Contracts Planned to Date:	$2,500,000
	Subtotal Agreements Planned to Date:	$15,560,000
	Total Planned to Date:	$18,060,000

CONTRACTS - *outside government*

Vendor	Brief Description of Services	Amount FY 1997
Advanced Management Technology	Analysts - 1) identify issues, 2) transportation satellite accounts, 3) national freight transportation demands, 4) consumer expenditures on transportation, and 5) transportation and transportation land use. Product Development Customer Services Activities Database Development and Maintenance Information Technology Center Support	$2,190,000
National Academy of Sciences	Transportation Research Board - ongoing efforts	$260,000
	Committee on National Statistics - ongoing efforts	$50,000

Answer. BTS agrees with the importance of understanding movements of hazardous materials, and argued for the inclusion of a hazardous materials code for shipments reported on the 1993 Commodity Flow Survey. At the time, the Census Bureau was concerned that the use of a code would be burdensome to the respondent and difficult to process, so BTS accepted the use of a check box rather than a code.

BTS believes that the CMA proposal for 1997 should answer the Census Bureau's concerns. Census is currently evaluating the proposal.

STATISTICAL PROGRAMS AND PRACTICES

Question. Has the joint Committee on National Statistics/Transportation Research Board panel begun its study to review the statistical program and practices of the Bureau of Transportation Statistics? What is the time frame for this study? When will the panel's conclusions and recommendations be made?

Answer. The 18-month study began on October 1, 1995. The first meeting of the Committee on National Statistics-Transportation Research Board Panel on the Statistical Programs and Practices of the Bureau of Transportation Statistics was held on January 18-19, 1996. The panel's final report will be released by March 31, 1997, but a preliminary statement of its findings should be available by the end of calendar year 1996.

Question. What are the primary issues which the study will address?

Answer. In its assessment of the statistical programs and practices of BTS, the panel will consider the various functions that BTS does or could perform (e.g., statistical policies, data collection, analysis, dissemination) and its relationships to other DOT agencies, to other federal statistical agencies, and to other data providers and users, including state agencies and the private sector. Specific areas of concentration will include:

- Statistical policy and relationships with other DOT agencies. An important role of BTS is to operate as the statistical policy agency within DOT providing coordination for data-collection programs, standards for data collection and reporting, and guidance on confidentiality issues, documentation, and quality control. Key issues are how to provide incentives for the DOT agencies to adopt appropriate standards and quality control procedures and how best to assist the agencies in assessing such tradeoffs as the accuracy and detail of data required and the cost for different survey and sampling designs.
- Relationships to state agencies and other data providers and users. Relationships with data providers and users, especially with state agencies through federal-state cooperative data-collection programs, are important to assure relevance of the collected data and to determine methods of collection and dissemination that make data more valuable to users.
- Relationships to other federal statistical agencies. Data sharing and statistical uses of administrative records make a statistical agency more effective as well as more efficient. The panel could suggest how BTS could promote the sharing of data and methods and the development of common classifications and procedures. A potential issue for the study is the relationships that BTS develops

with other statistical agencies, in particular the Bureau of Labor Statistics, the Bureau of Economic Analysis, the Bureau of the Census, the Energy Information Administration, and the Environmental Protection Agency, all of which collect data relevant to transportation policies.

Based on its initial review of BTS activities and existing transportation data activities, the panel will select a set of critical issues for more detailed review and analysis. Such analysis, including selected case studies, could focus on a data-collection program, a particular DOT or state agency, or a particular practice, such as dissemination or setting statistical standards. It could illuminate procedural, management, institutional, and statistical policy issues that BTS faces, such as the agency's reliance on data collection by other DOT administrations, other federal and state agencies, and private firms and organizations. The panel could compare and contrast BTS practices with those in statistical agencies in other Departments.

Through these analyses and case studies, the panel will examine how BTS could be made more effective in improving the quality of transportation statistics throughout DOT and will develop the basis for the panel's conclusions and recommendations.

Question. What are the estimated total BTS costs associated with this panel and study? Please provide a detailed breakdown of these costs.

Answer. [see table "Panel Study to Review the Statistical Program and Practices of the Bureau of Transportation Statistics" in Excel spreadsheet 6008.xls]

OFFICE OF AIRLINE INFORMATION

Question. The Office of Airline Information was transferred to BTS from the Research and Special Programs Administration in May, 1995. Under what authority was the transfer accomplished? Was any legislative direction necessary for this transfer? If not, why not?

Answer. Responsibility for the Department's aviation information program was transferred to BTS by the Secretary of Transportation. This program emanates from several statutes:

- 49 USC 329(b)(1), relating to collection and dissemination of information on civil aeronautics;
- Section 4(a)(7) of the Civil Aeronautics Board Sunset Act of 1984 (Public Law 98-443), relating to the reporting of the extension of unsecured credit to political candidates;
- 49 USC 40113, relating to taking such actions and issuing such regulations as may be necessary to carry out responsibilities under the former Federal Aviation Act of 1958;
- 49 USC 41708 and 41709, relating to the requirement to keep information and the forms in which it is to be kept; and
- 49 USC 41701, relating to establishing just and reasonable classifications of carriers and rules to be followed by each.

As the statutes gave authority to exercise powers and perform duties to the Secretary, no legislation was necessary to effect the transfer. *See* 49 USC 322. The Secretary delegated his authority to the Director of the Bureau of Transportation

National Academy of Sciences--National Research Council
Commission on Behavioral and Social Sciences and Education
Committee on National Statistics and
Transportation Research Board

Panel Study to Review the Statistical Program and Practices of the Bureau of Transportation Statistics

Total Estimate of Cost, October 1, 1995 to June 30, 1997 (21 months)

	Percent of time	Annual salary	Total salary	Subtotal	Subtotal	Project totals
1. Direct Labor						
Fall Exempt						
Study Director	50%	$91,400	$79,975			
Program Officer, TRB	7%	$75,300	$9,224			
Program Officer, TRB	1%	$84,000	$1,470			
Research Assistant	15%	$30,000	$7,875			
Editor	3%	$62,400	$3,276			
CNSTAT Director	6%	$97,500	$10,238			
CNSTAT Division Administrator	4%	$31,500	$2,205			
CNSTAT Financial Specialist	4%	$41,900	$2,933			
Total Fall Exempt					$117,196	
Total Exempt						$117,196

Fall Non-Exempt					
Sr. Project Assistant	43%	$35,400	$26,639		
Total Fall Non-Exempt				$26,639	
Total Non-Exempt					$26,639
Total Fall Salaries			$143,835		
Fall Salary Adjustment			$8,219		
Total Salary Adjustment					$8,219
Total Estimated Salaries (1)					**$152,054**
Fringe benefits @ 28.0% of Salaries					$42,575
TOTAL DIRECT LABOR (2)					**$194,629**
NET DIRECT LABOR					**$194,629**
2. Overhead (3)					
@ 64.60% of Net Direct Labor				$194,629	**$125,730**

3. Other Direct Costs

Travel Expenses								
Domestic Committee (12 members)	#pers	#mtgs	Days/mtg	#pers/mtgs	$cost/pers	Subtotal	Subtotal	
Panel Members	12	4	2	48	$640	$30,720		
Working Groups	5	2	2	10	$640	$6,400		
Subtotal Committee							**$37,120**	
Dissemination (2 members)	2	2	1	4	$570	$2,280		
Subtotal Dissemination							**$2,280**	
Staff	2	2	2	4	$640	$2,560		
Staff	1	1	5	1	$850	$850		
							$3,410	
Total Domestic Travel							**$42,810**	
Total Travel								**$42,810**
Other Personnel, Off-Site				# days or # items	$/item			
Consultants				50	$350	$17,500		
Total Other Personnel, Off-Site							$17,500	**$17,500**
Report Production (4)			# copies	# pages	$/copy			
Final Report			800	100	$8.26	$6,610		
Total Report Production							$6,610	

Photocopies (5)	$150	$/month		$3,150	
Postage and Delivery					
Project	$150	$/month		$3,150	
Report Dissemination	500	#copies @	$1.50	$750	
Telecommunications (6)					
Long Distance Telephone	$150	$/month		$3,150	
Tel. Equipment Charge	$106.56	$/month		$2,238	
Office Supplies	$150	$/month		$3,150	
Technology Services (7)	$536.34	$/month		$11,263	
Meeting Expenses	4	Mtgs. @	$400/mtg	$1,600	
Dissemination Mtg.	2	Mtgs. @	$400/mtg	$800	
Books and Periodicals				$835	
Total Other					**$36,696**
TOTAL OTHER DIRECT COSTS					**$97,006**
SUBTOTAL					$417,365
4. GENERAL AND ADMINISTRATIVE COSTS (8)					
G&A, 19.8% of Net Direct Labor, Overhead and Other Direct Costs	$417,365				**$82,638**
TOTAL ESTIMATED COST					**$500,004**
Amount Requested From Bureau of Transportation Statistics					**$500,000**

Statistics (in some cases, authority was delegated jointly to the Director of BTS, the General Counsel, and the Assistant Secretary for Aviation and International Affairs). The *Code of Federal Regulations*, 49 CFR § 1.71, was amended to reflect the transfer. *See* 60 Fed. Reg. 30195.

Question. Please summarize the reasons for the transfer, and specifically, why it was decided that BTS, rather than the Federal Aviation Administration, was the appropriate home for the Office of Airline Information.

Answer. BTS took over OAI at the request of the Secretary of Transportation. From BTS's perspective, the aviation data function fits well within our mandate to collect, analyze, and disseminate data on all modes of transportation. OAI provides comprehensive data on air carrier flows, economic trends, and costs, topics that are of particular interest to the Bureau. BTS is also a natural choice when a data function serves multiple policy or program offices, as OAI does.

Question. Which entities pay for financial and statistical economic data collected by OAI? (Are these data provided to federal, state and local customers gratis? Do non-governmental customers pay for these data?) If this information is provided as a subscription, please list and briefly describe the product, note the length of the subscription, the price per subscription, and the current subscribers for each product.

Answer. The primary users of the data are the Office of the Secretary (OST) and the Federal Aviation Administration (FAA). OAI does not charge OST or FAA for data, special analyses, support, and other services. These agencies, however, have historically provided supplemental funding to OAI through reimbursable agreements. Data is provided free of charge to other federal, state, and local governments. Nongovernmental users have access to data free of charge through a public reading room, the Internet, electronic bulletin board, fax-on-demand, and other means.

OAI charges a modest fee for volume data that entails preparation costs. Subscriptions are annual. The categories of subscribers to OAI data include value added data resellers, consulting firms, airlines, airport authorities, associations, state and local governments, and research institutions. Information on OAI data sales including price, number of sales, and revenues is in the table "Office of Airline Information - Data Sales." [See Excel spreadsheet oaisales.xls.] Information on subscribers is in the table "Office of Airline Information -- Subscribers." [See Excel spreadsheet oaicust.xls.] Customer names are being released under exemption 9 of The Privacy Act of 1974, 5 USC 522a(b)(9).

OFFICE OF AIRLINE INFORMATION - DATA SALES

TAPES	Annual Price	1995 Sales	1995 Revenues
1A - Ticket Dollar Value O&D	$600	12	$7,200
2A - Directional O&D (Int'l & Territorial)	$600	3	$1,800
2C - Directional O&D (Domestic)	$1,800	3	$5,400
4 - On-Line O&D	$600	3	$1,800
5 - O&D Survey City/Airport Nomenclature	$600	3	$1,800
6 - O&D City Pair Summary	$600	3	$1,800
BD10 - Financial	$600	2	$1,200
T-1 Traffic & Capacity by Service Class	$600	2	$1,200
T-2 Traffic & Capacity by Type of Aircraft	$600	2	$1,200
T-3 - Airport Activity Statistics	$600	3	$1,800
28DM - T100 Domestic Market	$1,800	8	$14,400
28DS - T100 Domestic Segment	$1,800	11	$19,800
28IM - T100 & T100f International Market	$1,800	6	$10,800
28IS - T100 & T100f International Segment	$1,800	6	$10,800
298C T-1 Commuter On-Line O&D	$600	7	$4,200
298C A-1 - Commuter Flight & Traffic	$600	2	$1,200
On Time 234 Performance	$1,800	7	$12,600
Individual Sales			$21,080
Total Tape Sales			**$120,080**

PUBLICATIONS	Annual Price	1995 Sales	1995 Revenues
Air Carrier Traffic Statistics Monthly (green)	$450	57	$25,650
Air Carrier Financial Statistics Quarterly (yellow	$250	60	$15,000
Air Carrier Industry Scheduled Service Traffic Statistics Quarterly (blue)	$250	22	$5,500
Individual Sales			$5,700
Total Publication Sales			**$51,850**

Office of Airline Information -- Subscribers

Product	Organization
1A - Ticket Dollar Value O&D	SH & E
	Electronic Data Systems
	Douglas Air Craft Company
	USAir, Inc.
	BACK Information Services
	Northwest Airlines
	GRA, Incorporated
	United Airlines
	Data Base Products
	Department of Labor/ BLS
	Trans World Airlines
	Delta Airlines
	Yeild Data
	Northeastern University
	GRA, Inc.
2A - Directional O&D	SH & E
(International and Territorial)	BACK Information Services
	Delta Airlines
2C - Directional O&D	SH & E
(Domestic)	BACK Information Services
	Reed Travel Group
4 - On-Line O&D	SH & E
	BACK Information Services
	American Airlines: Job FAT008
	Yeild Data
5 - O&D Survey City/Airport	SH & E
Nomenclature	Department of Labor/ BLS
6 - O&D City Pair Summary	BACK Information Services
	SH & E
	Yeild Data
BD10 - Financial	SH & E

Office of Airline Information -- Subscribers

Product	Organization
	Air France
T-1 Traffic & Capacity by Service Class	Data Base Products
	SH & E
T-2 Traffic & Capacity by Type of Aircraft	Data Base Products
	SH & E
T-3 - Airport Activity Statistics	Data Base Products
	SH & E
	Yeild Data
28DM - T100 Domestic Market	American Airlines: Job FAT008
	United Airlines
	BACK Information Services
	USAir, Inc.
	Douglas Air Craft Company
	Alaska Airlines
	Northwest Airlines
	Data Base Products
28DS - T100 Domestic Segment	American Airlines: Job FAT008
	Delta Airlines
	Northwest Airlines
	Alaska Airlines
	Douglas Air Craft Company
	USAir, Inc.
	The Boeing Company
	Data Base Products
	Trans World Airlines
	BACK Information Services
	United Airlines
28IM - T100 & T100f International Market	American Airlines
	Data Base Products
	United Airlines
	BACK Information Services
	USAir, Inc.
	Douglas Air Craft Company

Office of Airline Information -- Subscribers

Product	Organization
28IS - T100 & T100f International Segment	American Airlines
	Douglas Air Craft Company
	USAir, Inc.
	BACK Information Services
	The Boeing Company
	Data Base Products
	United Airlines
298C T-1 Commuter On-Line O&D	BACK Information Services
	USAir, Inc.
	Data Base Products
	United Airlines
	SCS- American Airlines
	Yeild Data
298C A-1 - Commuter Flight & Traffic	Data Base Products
	BACK Information Services
On Time 234 Performance	USAir
	Northwest Airlines: I/S Computer Support
	Electronic Data Systems
	Data Base Products
	Aviation Data Systems, Inc.
	United Airlines: Job PEBZ400
	MIT Lincoln Laboratory
Air Carrier Traffic Statistics (green)	Federal Aviation Administration-Library
	Data Base Products
	Camber Corporation
	KLM Royal Dutch Airlines
	Library of Congress
	ABN AMRO Bank N,V.
	Library of Congress
	Air Transport Association of America
	OST, Regulatory Analysis Division
	OST, Regulatory Analysis Division

Office of Airline Information -- Subscribers

Product	Organization
	Federal Aviation Administration
	OST, Assistant General Counsel
	Air Line Pilots Association
	OST, Assistant Director of Consumer Affairs
	Federal Aviation Administration
	U.S. DOL,Bureau of Labor Statistics
	Air Transport Association of America
	Embry-Riddle Aeronautical University
	Alaska Airlines, Inc.
	Department of Transportation
	OST, Office of Public Information
	Southern Air Transport, Inc.
	Congressional Information Service
	Congressional Information Service
	FAA, Statistics and Forecast Branch
	Embry-Riddle Aeronautical University
	OST, Office of Economics
	John F. Brown Company, Inc.
	Federal Aviation Administration
	Paine Webber
	Roberts Roach & Assoc., Inc.
	USAir
	French Embassy
	FAA, Air Carrier Branch
	OST, Office of Hearings
	Federal Aviation Administration
	FAA, Forcast Branch
	Transport Canada Library
	Kurth and Company, Inc.
	Unisys
	Boeing Commercial Airplanes
	OST/EAS and Domestic Analysis
	U.S. Aviation Underwriters
	The Washington Service
	OST, International Data Systems Division
	Cornell University Library
	Federal Aviation Administration
	OST, Fare and Rates Division

Office of Airline Information -- Subscribers

Product	Organization
	Congressional Information
	The Campbell Aviation Group, Inc.
	Cornell University Library
	DOT, Alaska Field Office
	Air Transport Association of America
	Minnesota DOT
	USAir
	OST, Transportation Regulatory Affairs
	DRI/ McGraw-Hill
	Mobil Oil Corporation
	Lehman Brothers
	Air Transport World
	Delta Airlines, Inc.
	Lasalle National Corp.
	Pratt and Whitney
	Air Transport Association of America
	Virginia Tech Institute and State University
	National Transportation Safety BRD
	Federal Aviation Administration
	Federal Aviation Administration
	Port Authority of New York and New Jersey
	Simat Helliesen & Eichner
	Standard & Poor's Corp.
	International Civil Aviation Organization
	Singapore Airlines Ltd.
	Stanford University
	Douglas Aircraft Co., C1-7-99
	The Boeing Company
	University of California, Institute of Transportation
	Federal Aviation Administration
	John F. Brown Company, Inc.
	Leigh Fisher Associates
	OST, Public Proceedings Division
	Association of Flight Attendants
	Institute du Transport Aerien (ITA)
	Swets Subscription Service
	HQ AMC/ XOB

Office of Airline Information -- Subscribers

Product	Organization
	OST, Office of Public Information
	M.I.T.
	Northwestern University
	Crowell and Moring
	Department of Transport and Communications
	Illinois DOT
Air Carrier Financial Statistics Quarterly (yellow)	Association of Flight Attendants
	Federal Aviation Administration/ Southwest Region
	OST, Office of Public Information
	HQ AMC/ XOB
	ABN-AMRO Bank N.V.
	OST, Public Proceedings Division
	Morten Beyer and Associates, Inc.
	National Transportation Safety Board
	Federal Aviation Administration
	EDS, Inc.
	Federal Aviation Administration
	Institute du Transport Aerien (ITA)
	Federal Aviation Administration
	Harvard Business School
	University of Arkansas
	Northwestern University
	Crowell and Moring
	Department of Transport and Communications
	Library, New York Public
	Douglas Aircraft Co., C1-7-99
	University of Pennsylvania
	Acquisitions Divisions
	International Civil Aviation Organization
	Port Authority of New York and New Jersey
	British Airways
	Air Transport Association of America
	OST, Fare and Rates Division
	Standard and Poors Corp.

Office of Airline Information -- Subscribers

Product	Organization
	Air Transport World
	The CTI Group/CEF
	Trans World Airlines
	University, Stanford
	OST, Transportation Regulatory Affairs
	USAir
	Cornell University Library
	Lehman Brothers
	The Campbell Aviation Group, Inc.
	The Sanwa Bank Limited
	Moody Investors Services
	Services, Back Information
	Delta Airlines, Inc.
	OST, International Data Systems Division
	Nothern Air Cargo, Inc.
	Jane's Inc.
	Federal Aviation Administration/ West-Pacific Reg.
	Bureau of Economic Analysis
	Bureau of Economic Analysis
	Federal Aviation Administration/ Central
	Unisys
	Kurth and Company, Inc.
	Back Information Services
	McKinsey and Company
	FAA, Air Carrier Branch
	French Embassy
	Dillon Read & Company, Inc.
	Company, The Boeing
	Zantop International Airlines, Inc.
	Goldsmith AG10 Helms
	Roberts Roach & Assoc., Inc.
	ESG Aviation Services
	Paine Webber
	Brown Company, Inc., John F.
	Putnam Companies
	Federal Aviation Administration
	McKinsey and Company
	Embry-Riddle Aeronautical University

Office of Airline Information -- Subscribers

Product	Organization
	FAA, Statistics and Forecast Branch
	Statistics Canada
	Statistics Canada
	Federal Aviation Administration Field Office
	Federal Aviation Administration
	Southern Air Transport, Inc.
	Federal Aviation Administration/ Eastern Region
	Federal Aviation Administration
	Federal Aviation Administration
	Congressional Information Service
	OST, Office of Public Information
	OST, Office of Economics
	Air Line Pilots Association
	Alaska Airlines, Inc.
	U.S. DOL,Bureau of Labor Statistics
	Department of Transportation
	Library and Information Center
	Fidelity Investments
	Exxon Company
	Lehman Brothers
	Japan, Ltd., Industrial Bank of
	All Nippon Airways
	Federal Aviation Administration
	OST, Assistant General Counsel
	Federal Aviation Administration
	SH & E
	Library of Congress
	OST, Regulatory Analysis Division
	KLM Royal Dutch Airlines
	Data Base Products
	Mercury Air Group, Inc.
	E., U.P.I.
	AeroMexico
	WEFA Group
	Federal Aviation Administration- Library
	A.T. Kearney, Inc.

Office of Airline Information -- Subscribers

Product	Organization
	OFC Integrated Safety Analysis
	Lynden Air Cargo, Inc.
	Air Transport Association of America
	Camber Corporation
Air Carrier Industry Scheduled Service Traffic Statistics Quarterly (blue)	Port Authority of New York and New Jersey
	McKinsey and Company
	The Boeing Company
	Association of Flight Attendants
	HQ AMC/ XOB
	OST, Office of Public Information
	Federal Aviation Administration
	Washington Service, Inc.
	Air Products and Chemicals
	Federal Aviation Administration
	Northwestern University
	Illinois DOT
	University of California, Institute of Transportation
	Douglas Aircraft Co., C1-7-99
	International Civil Aviation Organization
	OST, Public Proceedings Division
	Airline House, Airmail Transit Center
	OST, Transportation Regulatory Affairs
	OST, Assistant Director of Consumer Affairs
	Alaska Airlines, Inc.
	Lehman Brothers
	Mobil Oil Corporation
	University, Stanford
	Houlihan Lokey
	John F. Brown Company, Inc.
	Air Transport Association of America
	The Colography Group, Inc.
	Ecolab, Inc.
	Unisys
	Kurth and Company, Inc.
	Ansett Australia

Office of Airline Information -- Subscribers

Product	Organization
	The Sanwa Bank Limited
	British Airways
	Houlihan Lokey
	OST, Office of Economics
	Putnam Companies
	French Embassy
	French Embassy
	Company, The Boeing
	Roberts Roach & Assoc., Inc.
	KLM Royal Dutch Airlines
	Library and Information Center
	Paine Webber
	FAA, Statistics and Forecast Branch
	OST, Office of Hearings
	Statistics Canada
	D.K. Shifflet and Associates
	FAA, Technical Standards Branch
	U.S. DOL,Bureau of Labor Statistics
	Data Base Products
	AeroMexico
	OST, Regulatory Analysis Division
	Juliar, Marvin
	Embry-Riddle Aeronautical University
	OST, Office of Public Information
	Air Line Pilots Association
	All Nippon Airways
	Federal Aviation Administration
	Fidelity Investments
	OFC Integrated Safety Analysis
	PTI Technologies, Inc.
	Library of Congress
	Federal Aviation Administration
	FAA, National Planning Division
	ESG Aviation Services
	ABN AMRO Bank N,V.
	Federal Aviation Administration- Library

Following is a list and description of OAI products.

Tapes

Databank 1a - Ticket Dollar Value O&D: This file contains all of the data as reported by participating air carriers from the continuous 10% sample of airline tickets, including the full itinerary and the dollar amounts paid by each passenger. The data are summarized into like records by routing and dollar paid. DOT posts the mileage for each itinerary segment, applies a numeric code identifying each city/airport, and a world area code to indicate the geographic location by state/country.

Databank 2a - Directional O&D (International and Territorial): This file contains outbound and inbound passenger totals for the quarter of the filed date and the three immediately preceding quarters, for international routings classified as unidirectional by applying trip-breaking criteria to all ticketed routings.

Databank 2c - Directional O&D (Domestic): This file contains outbound and inbound passenger totals for the quarter of the file date and the three immediately preceding quarters, for domestic routings classified as unidirectional by applying trip-breaking criteria to all ticketed routings. The domestic leg of an international journey data are included, and separately identified, in these domestic data.

Databank 4 - On-Line O&D: This file contains passenger and passenger-mile data for all online flight segments of a reporting air carrier (segments on which the same carrier serves all contiguous ticketed flight-coupon segments) for the quarter of the file date and the three immediately preceding quarters.

Databank 5 - O&D Survey City/Airport Nomenclature: This file contains the letter alphabetic codes (such as DFW for Dallas/Ft. Worth or ATL for Atlanta), numeric codes, full name spelling (up to 30 characters), abbreviated name spelling (up to 20 characters), and geographic coordinates for the airports (serving a metropolitan area) in flight itineraries reported in the Survey.

Databank 6 - O&D City Pair Summary: This tape includes domestic city-pair summary data (based on directional origin-destination) and mileage data. Included are the top-ranked 1,000 city-pairs, ranked by passengers and passenger-miles, respectively, and a domestic city-pair summary of all city-pairs in the Survey, based on directional origin-destination, covering passenger traffic for all city-pairs, without routing information.

B-10 Financial: This tape includes financial balance sheet (assets, liabilities, and net worth) data and income statement (revenue and expense) data.

T-1 Traffic & Capacity by Service Class, T-2 Traffic & Capacity by Type of Aircraft, and T-3 Airport Activity Statistics: These tapes provide traffic statistics (based on a compilation of Form 41 Schedule T-100 data and supplementary schedules Form 41 Schedule T-1, T-2 and T-3) detailed by service class, such as category K (Scheduled) or category V (Nonscheduled) or subcategories such as G (Scheduled All-Cargo) or L (Nonscheduled Civilian Passenger/Cargo), and by type of aircraft (the normal passenger/cargo configuration for a Boeing 747-100 is code 8161) and passenger or cargo and other traffic data by airport.

28DS - T100 Domestic Market: International Market Data is restricted (held confidential for three years after the report date). This file contains data reported by U.S. and foreign air carriers. These data are often referred to as either "Market" or "On-Flight O&D" records. The data fields contain information on passengers, freight and/or mail enplaned at the origin airport and deplaned at the destination airport.

28DM - T100 Domestic Segment: This file contains data reported by U.S. carriers operating nonstop between airports located within the boundaries of the United States and its territories. These data fields contain information by aircraft type and service class for departures performed, available capacity and seats, passengers transported, freight and mail transported, scheduled departures, and aircraft hours ramp-to-ramp and airborne.

28IS - T100 & T100f International Segment Data: International Market Data is restricted (held confidential for three years after the report date). This file contains data reported by U.S. carriers operating nonstop between airports where at least one airport is located outside the boundaries of the United States or its territories. These data fields contain information by aircraft type and service class for departures performed, available capacity and seats, passengers transported, freight and mail transported, scheduled departures, and aircraft hours ramp-to-ramp and airborne.

28IM - T100 & T100f International Market Data: International Market Data is restricted (held confidential for three years after the report date). This file contains data reported by U.S. and foreign air carriers. The data fields contain information on passengers, freight and/or mail enplaned at the origin airport and deplaned at the destination airport.

298C T-1 Commuter On-Line O&D: This tape includes data reflecting the total online origin and destination traffic in scheduled passenger service.

298C A-1 Commuter Flight & Traffic: This tape includes data reflecting the total flight and traffic statistics in scheduled passenger service operations by commuter and small certificated air carrier operators.

Part 234 on Time Performance Data: Data on this tape provide information on how closely air carriers are adhering to their published flight schedules. These data are presented by City-Pair Market, Time of Day, Carrier, and Flight Number" (monthly). A flight is considered to be "on time" when it arrives less than 15 minutes after its published arrival time.

Publications/Printed Booklets

Air Carrier Traffic Statistics Monthly (green) (available from December 1985 forward):
These printed data comprise monthly airline operating statistics for the Large Certificated Air Carriers operating aircraft with a maximum passenger seating capacity of more than 60 seats or a miximum payload capacity of more than 18,000 pounds. The data consist of passenger and cargo capacities and traffic actually carried, by carrier and class of service for the most recent month and 12-month period and similar data for like periods in the previous year. Data are summarized by carrier entity (such as Domestic and International) and by carrier group (such as Major, National and Large Regional).

Air Carrier Financial Statistics Quarterly (yellow) (available from June 1985 forward):
These printed data comprise quarterly airline financial statistics (balance sheet and income statement data) obtained from air carrier reports (Form 41 financial schedules) filed with the DOT Bureau of Transportation Statistics Office of Airline Information.

Air Carrier Industry Scheduled Service Traffic Statistics Quarterly (blue) (available from September 1985 forward): These printed data are produced quarterly and incorporate the detailed scheduled service statistics of the Part 298 small certificated and commuter air carriers with the large certificated medium regional category of air carriers to provide, together with the group totals for large certificated air carrier in the major, national and large regional groupings), the total industry traffic data. The data are obtained from air carrier reports submitted to OAI on either Form 41 Schedules T-100, and T-1, T-2 and T-3, and from Form 298C Schedules A-1 and T-1. Only schedules service statistics are presented (charters or other nonscheduled services are excluded), since the Form 298C filed by small certificated and commuter air carriers require only scheduled service data.

Question. What are the responsibilities of the OAI Alaska field office? Why is a field office necessary to perform these functions?

Answer. The Alaskan field office monitors aviation operations in Alaska and helps the numerous air carriers comply with statutory filling requirements, such as the Alaskan mail rate program of the U.S. Postal Service. This $100-million per year program depends on the costing reports from small and commuter air carriers. The Alaska Office is critical to the operation of this program. The office works with air carriers to ensure the accuracy and timeliness of the data on which the mail rates program relies.

Further, the need for a regional office is driven by special characteristics of Alaska's air industry. Alaskan air carrier operators represent 34 percent of the total U.S. air carriers in the small and commuter category. The remote location of many Alaskan communities and the rugged landscape limits the viability of traditional modes of transportation, particularly during the winter months. Because existing highways frequently become impassable during the winter and overland travel is slow and arduous, air transportation presents the only alternative.

Question. What is the staffing level of the Alaska field office? Please break out the field office's annual budget (FY 1995, 1996 and requested for 1997), using the standard OMB object classifications.

Answer. The Alaska Office staffing is composed of two persons which in FY 1997 and FY 1998 are the supervisor (GM15) and an inspector (GM14). Both the office manager and inspector are essential to ensure the accuracy of carrier reports upon which the $100 million mail rates program funds distribution is based.

Object class	Description	FY 1995 Enacted	FY 1996 Enacted	FY 1997 Request
	Personnel			
11.1	Full-time staff	RSPA	196.453	202,120
11.3	Part-time staff	RSPA	0	0
11.5	Other personnel compensation	RSPA	0	0
12.1	Personnel benefits	RSPA	31,432	32,339
	Travel			
22.0	Travel and transportation of persons	RSPA	4,000	7,000
	Administration/Communications			
23.1	Rent (office space)	RSPA	Provided by FAA	3,600
23.25	Postage	RSPA	250	258
23.28	Telephones	RSPA	300	309
24.0	**Printing**	RSPA	50	52
25.0	**Contracts/Services**	RSPA	310	319
25.7	Operations and maintenance of equipment	RSPA	392	404
26.0	**Supplies and Materials**	RSPA	400	412
31.0	**Equipment**	RSPA		
	TOTAL OBLIGATIONS	RSPA	233,587	246,812

An organizational background document provided to the Committee describing the products, functions and services of the Office of Airline Information included a "5-Year Plan" for the office. Five of the eight goals of the plan were in some way related to making the OAI more automated and less paper-dependent.

Question. Please prepare an outline of major milestones in accomplishing each of the eight goals of OAI's five-year plan.

Answer. When the Office of Airline Information was acquired by BTS, new management was installed. The RSPA "Five-Year Plan" was replaced by a more specific plan based on a three-year time horizon. The primary emphasis of the new plan is the development of a new, technologically advanced origin and destination (O&D) system that derives its data from airline in-house computer reservation systems (CRS), as opposed to the present paper ticket image system. The Department and the airline industry would benefit in several distinct ways.

1. Instead of the airlines maintaining a system where every tenth paper ticket coupon is imaged and submitted to the Department, the airline merely provides limited access to its computer-based reservation records. The new system obviates the need for a second antiquated, costly, paper-based system that must be maintained in order to comply with government reporting requirements. As a result, the burden to the airlines of complying with government reporting requirements for the O&D system will substantially decline.

2. Since data entered by airline personnel and travel agents are checked for validity at the time of entry in the CRS, the presence of errors in data submitted to the Department will be reduced as will error detection and processing costs.

3. Because the new system will rely on "live" reservation records, the data will be current. Secondary processing in preparation for reporting to the Department is unnecessary. The Department will enjoy the advantage of basing its policy decisions on information that is timely and consequently reflective of current market conditions.

4. It is anticipated that Department communications with the airline CRSs will be directly over a communications system that is now used by the airlines to transmit booking and billing information. As a consequence, data transmitted between the airlines and the Department will be available quickly, instead of having to prepare and send magnetic tapes.

5. The software used to process the O&D data are at least 20 years old. Their design was optimized for early, limited-scale computer systems. The cost of processing this data on large computers today using this software is substantial. The new system will rely on computer software that is more efficient and portable, permitting it to be run on smaller computer systems that afford cost advantages.

Question. What are the anticipated computer equipment and software needs associated with these modernization efforts?

Answer. The Department's software used to process the O&D data was developed 20 years ago, and is composed of COBOL, Fortran, Assembler, and Natural. As a result, it is costly to modify and maintain and must be run on larger mainframe computers. A new system written in a modern later-generation language (such as C++, Visual C++, Visual Basic) will take advantage of technological advances in software design, performance, and maintainability. The modernization plan calls for the development of software to process data as it is acquired from the airlines with sampling, reformatting, consolidation, error checking, and computations performed by a modular system. The results would then flow into a database management system (DBMS) where reports could be generated by users or data could be extracted for further processing and analysis. Once the data is under the control of a DBMS, it is also available for dissemination through bulletin boards or Internet, both of which have been installed by BTS.

Modernization of the T-100 flight segment data processing system involves the development of software that will assist airlines in preparing submissions for the Department. This software will perform automated checks and summarization of the data to limit errors and consolidate the data into standard formats that can be transmitted to the Department. This will reduce the submission of erroneous data, and speed data processing at the Department while reducing the burden on airlines which resubmit corrected data for data that is found to be inaccurate. One of the primary goals in developing new systems is to be able to utilize modern software that is portable across many computer systems. This provides the user with the flexibility to move down to smaller, less costly computer systems in meeting user processing needs.

INTERNET SERVICES

Question. How many "hits" has the BTS Internet site had since going online? (When was the BTS site brought online?) How many documents have been downloaded by visiting customers?

Answer. Since December 20, 1994 (the site was first advertised on January 23, 1995) the BTS World Wide Web site has had 1,943,175 "hits," defined as the total number of files requested by Internet client machines. More than 716,155 HTML documents have been requested by client machines. More than 50,000 substantive documents have been downloaded by more than 15,000 distinct clients. Over 1,264 unique state, local, and federal government computers have received items from the site.

Question. Please summarize the holdings of the BTS Internet library.

Answer. The National Transportation Library (NTL) is an easy-to-use, multi-jurisdictional, electronic network and repository -- a library of full-text documents generated by DOT, state departments of transportation, local planning agencies, universities, and private-sector firms.

The Internet library offers more than 1,000 links to full-text reports (average length is about 40 pages). More than 120 agencies have contributed materials to the library, which is growing rapidly as more transportation agencies develop Internet sites or begin to send BTS copies they are unable to get on-line themselves. Hundreds of reports are currently being processed at BTS and elsewhere. The library will be an access point for at least 5,000 reports by 1997.

The following is the NTL Table of Contents:

- Access and Intermodal Connectivity
- Bicycles and Pedestrians
- Congestion Management
- Directories and References
- Economic Impacts
- Energy and Environment
- Expenditure Programming
- Facilities Design and Maintenance
- Freight
- Geographic Information Systems
- Land Use
- Law and Regulations
- Management Systems
- Parking
- Public Participation and Outreach
- Right of Way
- Safety
- Sample Plans and Planning
- Social Effects
- Survey Methods and Data
- Technology Applications
- Transit Use

- Transportation History
- Travel Demand Forecasting

Question. What has been the customer response to BTS's online offerings? What features garner the most praise? The most complaints? What information needs have customers expressed that have not yet been made available?

Answer. Our Internet customers are transportation planners, transit operators, trade associations, research and consulting firms, commercial carriers, students, and the public.

Our web site has received overwhelming praise from users. *Government Executive Magazine* (January 1996) called the BTS Internet site "one of the best examples of 'cybergovernment,'" and *PC Week* (Feb. 5, 1996) featured the site as an "Internet Best Practice." The Secretary of Transportation favorably cited the National Transportation Library when he awarded one of the Bureau's employee's a Silver Medal Award "in recognition of exceptionally meritorious service to the Department or Federal government." The site was also recognized when its principal developer was found by a panel of judges to be among the 100 executives from government, industry, and academia who had the greatest impact on the government systems community in 1995 (*Federal Computer Week, Federal 100 Awards*). The Library was also one of a group of BTS initiatives that won a Hammer Award for making transportation information accessible, inexpensive, and easy to use. Finally, a CD-ROM version of the library was awarded a 1995 SIGCAT Foundation Award for excellence in CD-ROM technology applications.

Planners isolated by travel restrictions have explained that they use the site to learn about practices and innovations in other parts of the country. They exchange e-mail advice with peers and capture copies of documents that would otherwise be unavailable to them. Planners everywhere now have access to a transportation library, which they are using to improve their understanding and their work.

The site is also used by universities and planning organizations to train students and new employees. It is also being used to explain key concepts to experienced staff who are not familiar with new planning subdisciplines.

The biggest complaint about the site is that it is not expanding fast enough and that detailed information on very specific areas of interest is not yet available. More airline information and more state-level comparative data are the two more commonly requested items not yet fully supported on the site.

GEOGRAPHIC INFORMATION SERVICES (GIS) CENTER

Question. Which DOT agencies, other than RSPA, do not have their own geographic information services staff? Has BTS developed cooperative agreements with any of these other DOT agencies to provide technical support in the area of transportation-related geographic information? Have any other formal Memoranda of Understanding resulted (again, other than the one signed with RSPA) from these cooperative agreements with other DOT agencies?

Answer. Most DOT Modal Administrations have at least a basic geographic information systems capability, typically consisting of a small number of desktop GIS software packages and one or more technical staff trained in their use and providing GIS services as an adjunct to their normal duties. Other than BTS, however, only the Federal Highway Administration has full-time staff positions devoted to GIS.

BTS has provided GIS support to nearly all DOT Modal Administrations on an informal basis. Typical BTS GIS support has included: 1) preparation and printing of large format maps (only BTS and FHWA have large color printers capable of producing a 3' x 4' map); 2) development of spatial databases for a specific project analysis or map display; 3) technical advice on alternative data sources, GIS software and hardware, or spatial analysis methods; and 4) enhancement, standardization, and dissemination of spatial data holdings of DOT Modal Administrations.

To date, no formal Memoranda of Understanding have been established between BTS and other DOT Modal Administrations. At this time, the resources required to provide GIS technical support to other DOT Modal Administrations can be adequately absorbed within current capacity, and the informal nature of these relationships have helped BTS establish itself as a Department-wide resource. As demand for BTS GIS services grows, more formal interagency agreements may become necessary.

Question. Has BTS developed cooperative agreements with other federal agencies to provide GIS technical support? If so, with whom?

Answer. No formal cooperative agreements have been established between BTS and other federal agencies to provide GIS support. BTS has, however, an informal agreement with the U.S. Army Corps of Engineers and with the Military Traffic Management Command to disseminate spatial databases developed by these agencies that depict transportation features of national significance, including the navigable waterway network, waterway and marine ports, locks and dams, and military installation locations. BTS also worked cooperatively with the Bureau of the Census to produce the 1994 release of the TIGER/Line spatial data files, which included update address range information and zip code and traffic analysis zone boundaries.

Question. Besides DOT and other federal entities, who are the GIS Center's customers? Describe what services are provided to these non-federal government customers, and what forms these services take.

Answer. The BTS GIS Center provides four types of services, each oriented toward a somewhat different set of customers. The first, GIS analytical support, as described above, is provided to other parts of BTS and to other DOT Modal Administrations upon request. The GIS Center has not attempted to expand beyond this existing customer base, because to do so exceeds the scope of its mission as a DOT agency.

The second service is to develop, maintain, and disseminate geo-spatial data on transportation features of national significance. These databases are collected from other DOT Modal Administrations and federal agencies, and are made available to the general public on the National Transportation Atlas (NTA) CD-ROM and through the BTS World Wide Web site. Over 4,500 copies of the 1995 NTA CD-ROM have been distributed and nearly 500 individual NTA databases have been downloaded from the

BTS web site since they were first posted in January 1996. A sampling of users from both the CD-ROM and web site registration lists yields the following percentages by category:

	CD-ROM	Web Site
General public	40 %	50 %
Universities	10	25
Federal agencies	10	5
State government	10	5
Local government	25	5
International	5	10

The third service is to provide a focal point and voice for the transportation community in the development of spatial data standards and the National Spatial Data Infrastructure (NSDI). BTS is the lead agency for transportation spatial data on the Federal Geographic Data Committee (FGDC), and has sponsored several initiatives related to the development of standards to facilitate the exchange of transportation spatial databases. The GIS Center also provides several services on its Web Site to facilitate information exchange among transportation users of GIS and spatial data. They include: 1) an unmoderated Internet news group where users can discuss issues related to transportation GIS; 2) links to other Web Sites containing GIS services or products, transportation spatial databases, or research initiatives of interest to the transportation GIS community; and 3) links to technical documents, research reports, or application papers that may be of interest to the transportation GIS community. While this service is aimed at the entire transportation GIS community, the principal users at this time are other federal agencies involved in the FGDC and those with access to the Internet.

The fourth service is to identify and promote new research initiatives to meet the needs of the transportation GIS community. GIS Center staff are active participants at conferences, workshops, and other meetings involving the GIS and/or transportation research communities. The GIS Center has sponsored research to develop tools to better integrate GIS and transportation planning models, to incorporate linear referencing systems (e.g., highway mileposts) into spatial data transfers, and to evaluate other locational referencing options required for intelligent transportation systems (ITS). This research focus supports the entire transportation community.

Question. Has the National Transportation Atlas Database been updated for 1996? When is the release date?

Answer. The National Transportation Atlas Database has been fully updated for 1996. The CD-ROM is currently being published and should be available for distribution by May 31, 1996. All of the updated databases included on the 1996 CD-ROM can currently be downloaded from the BTS web site.

Question. Has the GIS Center prepared any thematic maps to visually display transportation topics of current interest? If none have yet been developed, what types of thematic maps are planned? When will they be released? In what form will they be made available?

Answer. To date, the only thematic maps prepared by the GIS Center which have been widely disseminated to the general public are the *Major Transportation Facilities of the United States* insert maps included with the 1995 and 1996 *Transportation Statistics Annual Report.*

The GIS Center plans to prepare other thematic maps depicting transportation topics of current interest on a periodic basis, and make them available as downloadable image files on the BTS web site. A small number of paper copies of each map may be printed for internal DOT use, but no mass production or general distribution, other than through the Internet, is planned because of cost. Due to limited staff resources and other, more pressing priorities, development of web site thematic maps will not begin before FY 1997.

Specific topics covered by the thematic maps will depend on user feedback and coordination with other DOT Modal Administrations, but will generally be developed based on important current events of interest to the general population. Typical topics might include: the locations of fatal general aviation accidents over the past year; the revised railroad system resulting from a proposed merger of two major railroads; community movements by mode between the United States, Canada, and Mexico; or the Global Positioning System (GPS) augmentation coverage provided by Coast Guard GPS base stations.

DATA USER SERVICES

Question. What new statistical products are being developed or considered for development by the Data User Services program?

Answer. The Data User Services Program of the Bureau of Transportation Statistics is currently developing five new CD-ROM products, including the American Travel Survey (ATS) Public Use Microdata File (Six-Month and Annual File), the American Travel Survey Flow File (Six-Month and Annual Files), and the International Travel and Tourism Data Sampler CD-ROM. In addition, the product development area is currently updating the Traffic Safety CD-ROM to incorporate all available statistics from the Fatal Accident Reporting System and General Estimates System. A description of each of these products is included in the following listing. Several new printed reports and analytical products are also being developed for release in 1996.

1995 American Travel Survey Microdata on CD-ROM (Six-Month File and Annual File): The ATS Microdata File on CD-ROM will contain four files with individual records representing household, person, person trip and household trip data collected in the ATS. Two ATS Microdata Files will be produced, representing the first two quarters of data collection and an annual file. The microdata file, as well as the technical documentation, will be made accessible via the National Center for Health Statistics's Statistical Extract and Tabulation Software.

1995 American Travel Survey Flow File on CD-ROM (Six-Month and Annual Data Files): The ATS Flow File on CD-ROM will contain summary-level data for origin and destination geography. On-disc, point-and-shoot retrieval GO software for both IBM and Macintosh platforms will be developed by the Census Bureau.

International Travel and Tourism CD-ROM: The International Travel and

Tourism Data Sampler CD-ROM contains international travel and tourism statistics, statistical reports, survey methodologies, and collection instruments from over 80 international statistical and transportation organizations. The CD-ROM will contain over 10,000 pages of travel and tourism statistics related to transportation mode, lodging, expenditures, and related travel and tourism statistics.

Traffic Safety CD-ROM: 1996: The Traffic Safety CD-ROM: 1996 contains 20 years of statistics from the National Highway Traffic Safety Administration's Fatal Accident Reporting System detailing all highway accidents resulting in a traffic fatality. In addition, the product contains all seven years of the General Estimates System, a survey of all accidents.

Counting the New Mobile Work Force: Examines existing federal surveys to identify those that include, or could add, work-at-home questions, in order to generate more reliable information about the increasingly mobile U.S. workforce.

Airport Activity Statistics, 1994: Provides statistics on all scheduled and non-scheduled service traffic of large, certificated U.S. air carriers.

Airport Activity Statistics, 1995: Provides statistics on all scheduled and non-scheduled service traffic of large, certificated U.S. air carriers.

Question. What training seminars have been conducted thus far by the Data User Training program? Where were these seminars held? What were the costs to BTS? What training seminars are planned to be conducted during the remainder of fiscal year 1996?

Answer. The Data User Training Program was initiated in January 1995 to inform the data user community about the availability, accessibility, and uses of transportation statistics, services, and resources. During 1995, the Data User Training Program focused its efforts on developing training and presentation resources for BTS staff, including over 15 computer-generated multimedia screenshows detailing data user services and products. In addition, the training program produced a detailed information kit containing product profiles for each product developed by the Bureau. These information resources are used by BTS staff at exhibits, conferences, and presentations nationwide. During the course of the year, the user training program conducted a variety of presentations at national exhibits, interagency seminars, state departments of transportation meetings, State Data Center annual conferences, and other transportation-related activities.

The Bureau of Transportation Statistics has contracted with JHK and Associates to conduct seminars on the Census Transportation Planning Package (CTPP) Urban Element. JHK also conducted 35 training seminars nationwide for the Statewide package in 1994. The Urban Element conferences are being held in up to 20 cities nationwide, based on demand. Currently, workshops are scheduled in Massachusetts, New Jersey , Nevada, Delaware, Pennsylvania, North Carolina, Washington, Texas, Michigan, Florida, and Minnesota. The CTPP Urban Element training series cost BTS $20,000 for initial training development and $4,980 per seminar, including all costs incurred by marketing, registration, site acquisition, facilities charges, travel, and instructor expenses.

Question. What training seminars are being developed by the Data User Training program?

Answer. Two BTS training seminars are being developed by the Data User Training Program. The first, "Accessing Transportation Statistics," is being developed to provide data users a broad perspective of the availability, access, and use of transportation statistics and resources within the DOT and its allied agencies. The second seminar, "Transportation Resources on the Internet," is being developed to introduce data users to Internet technologies and the methods of accessing transportation statistics via this medium.

Question. Please update the Committee on the State and Metropolitan program implementation.

Answer. BTS is awaiting the approval of the staffing plan to fill the position of the program manager for the State and Metropolitan Programs area. The program will be initiated as soon as this position is filled.

Question. Please update the Committee on the University program. Has this program, which is designed to keep colleges and universities apprised of current developments in transportation data products and services, been initiated?

Answer. We are waiting for approval of the staffing plan to fill the position of University Programs Manager. The program will be initiated as soon as this position is filled.

Question. Has the position of Publications Manager been filled? Has the position of Periodicals Editor been filled? Can these two positions be covered by one staff person, or does it require 2 FTEs? Please explain why.

Answer. BTS is waiting for approval of the staffing plan to fill the position of Publications Manager and the position of Periodicals Editor. Two full-time employees are required to meet increasing demands for editorial involvement and supervision in the development of existing and upcoming statistical, analytical, and informational publications. In order to adequately meet these demands, the Publications Manager will manage the publication of all regular and occasional statistical and analytical reports and publications, including the *Transportation Statistics Annual Report*. The Periodicals Editor will develop and serve as the editor-in-chief of the agency's newsletter, *BTS Forum* and quarterly, refereed journal, *Journal of Transportation Statistics Quarterly*.

DOT "SITUATION ROOM"

Question. Please update the Committee on the current stage of planning and development of a "Situation Room", which would provide a geographical display of the public buildings (schools, hospitals, etc.), energy conduits and centers, and transportation infrastructure features of any given location in the U.S., for response planning in emergencies.

Answer. The BTS multimedia GIS Conference Room is now operational and complete except for a few minor technical adjustments and staff training. The room is designed to function as a strategic planning conference facility in which multiple source material can be viewed simultaneously, alternative solution strategies tested using the full capabilities of the BTS GIS Center, and videoconferencing links provided between the conference room and one or more remote sites. The room also serves as a multimedia presentation facility in which virtually any combination of display media can be supported.

Because of its versatility, the GIS Conference room can also serve as a back-up to the "Crisis Management Center" built by DOT's Office of Emergency Transportation (OET), or can be linked to it during large scale emergencies to provide additional capacity. Primary responsibility for emergency transportation, however, continues to reside with the OET.

TRANSFERRED ICC FUNCTIONS

It is the Committee's understanding that, effective January 1, 1996, BTS has taken on the former Interstate Commerce Commission's motor carrier data functions -- a collection of financial and operational statistics from Class I, II and III motor carriers and over-the-road buses. The program is somewhat similar to that of the Office of Airline Information in that both collect carrier-level economic and market data. BTS plans to reevaluate the motor carrier data program, examining what the public and private data needs are and how they can best be met.

Question. How is BTS absorbing the additional costs associated with the motor carrier data functions in fiscal year 1996? Are these ISTEA contract authority funds, or general funds?

Answer. The ICC sunset legislation, while giving BTS additional responsibilities, did not provide any additional funds for carrying them out. For FY 1996, BTS is absorbing the costs of maintaining and redesigning the program out of its ISTEA contract authority funds. Once we identify the level of effort required to implement the redesigned program, we will determine whether additional funds are required.

Question. Please update the Committee on BTS's efforts to reevaluate and redesign the motor carrier data program.

Answer. BTS is conducting a zero-based review of the data program. The ICC sunset legislation calls for reporting to be streamlined and simplified to the maximum extent possible. This started with a series of informal informational meetings with parties interested in the program and those knowledgeable about its history. Any substantive changes will require BTS to use the regulatory notice and comment process. BTS is working with the Office of the General Counsel to begin this formal process.

Question. Organizationally, within which BTS office will the motor carrier data functions be assigned? What are the anticipated costs that have been budgeted for this program in FY 1997?

Answer. Currently, due to the parallels in the collection of the data, the motor carrier data functions are under the charge of the director of OAI. Support also comes from throughout the BTS organization -- support for data analysis, policy guidance, and program reevaluation.

At the time BTS submitted its 1997 budget, no discussions had taken place regarding BTS assuming responsibility for the motor carrier data function. Therefore, no money was specifically budgeted for this program. We anticipate the motor carrier data program will cost approximately $200,000 in FY 1997.

UNOBLIGATED BALANCES

Question. Of the $22,200,000 provided to BTS in Public Law 104-50, what amount remains unobligated as of March 30, 1996? (Please distinguish between highway trust funds and general funds.)

Answer. Although the Bureau of Transportation Statistics was provided $20 million in Public Law 104-50, it received some recisions for FY 1996. BTS was notified by the Federal Highway Administration that due to an overobligation of the ISTEA-mandated funds by FHWA, BTS would have its FY 1996 funding reduced by $2,458,972 bringing the FY 1996 budget down to $17,541,028. The Department of Transportation further reduced the FY 1996 budget for BTS with a $277,000 recision for Administrative Cuts as directed by Congress. Therefore, BTS's FY 1996 budget, all of which is Highway Trust Funds, is $17,264,028. Of this amount, as of March 30, 1996, $1,767,881 remains unobligated.

In May 1995, the Bureau of Transportation Statistics assumed responsibility for the Office of Airline Statistics (now called the Office of Airline Information) from the Research and Special Programs Administration. With these responsibilities came the appropriation for FY 1996 from the general funds of $2.2 million. The transfer of these funds and determination of an accurate balance of obligations for FY 1996 for this account are currently in progress. We will be unable to report the balance for this account until the obligations are reported to BTS. Until then, there remains $2.2 million in this account.

Question. At the ends of fiscal years 1995 and 1996, what amounts, if any, remained unobligated? BTS received $20,000,000 in FY 1995, and $15,000,000 in FY 1994.

Answer. At the end of FY 1995, $571,178 remained unobligated and was carried over into FY 1996. We expect none to remain unobligated by the end of FY 1996.

BTS STAFF TRAVEL

According to the Department's Inspector General, in fiscal year 1995, BTS Director Lakshmanan went on twelve trips (9 domestic and 3 international), costing a total of $14,210. Though not one of the "top ten" DOT travelers, Dr. Lakshmanan does rank thirteenth on the list of DOT senior level travel (excluding Maritime Administration travelers).

Question. Please list the twelve trips taken by Director Lakshmanan in FY 1995, and all travel undertaken in FY 1996 to date. Include the destinations, dates of travel, and purpose of each trip. What travel is planned for the remainder of FY 1996?

Answer. The 12 trips taken by Dr. Lakshmanan in FY 1995 were:

Dates of Travel	Purpose	Destination
1. 11/6-9/94	To meet with the Director of the Volpe National Transportation Systems Center.	Boston, MA
2. 11/11-14/94	To attend the American Association of State Highway Transportation Officials Annual Meeting.	Albuquerque, NM
3. 11/18-20/94	To meet with UK Transportation Research Lab officials to discuss urban development models (known around the world for their excellence and leadership in the development of these models) and to learn how these models might be applied to BTS data-collection efforts. Conference in Geneva to speak to the UN/ECE Working Party on Transport Statistics 45th Session for the U.S. Department of State (reimbursement for Geneva portion obtained).	London, UK Geneva, SWI
4. 12/17-20/94	Summoned to Washington, DC for an emergency meeting with the Secretary of Transportation while on personal leave.	Washington, D.C. (from Boston, MA)
5. 1/25/95	Invited to speak before St. Anselms College on the economic performance of the U.S. transportation system.	Manchester, NH
6. 2/21-24/95	To give a presentation to the Institute of Transportation Studies at the University of California at Berkeley to present BTS's analytical and statistical programs and solicit reactions from a panel of highly knowledgeable professors.	San Francisco, CA
7. 3/29-30/95	To meet with the Director and faculty at the Center for Transportation Studies, Massachusetts Institute of Technology, and meet with senior officials at the Volpe National Transportation Systems Center to discuss the scope of the National Science and Technology Council's Transportation Subcommittee systems assessment.	Boston, MA
8. 6/15-17/95	To participate at the Board of Director's Meeting of the National Science Foundation-sponsored National Center for Geographic Information and Analysis.	Buffalo, NY
9. 6/29-7/9/95	To inaugurate and present at the opening session and the final session at the BTS conference on Full Social Costs and Benefits of Transportation.	Los Angeles, CA

10. 7/15-22/95	To present two papers and participate as a panel member at the 7th World Conference on Transportation Research.	Sydney, AUST
11. 7/30-8/3/95	(a) To meet with the Director and Deputy Director of the Institute visit the Santa Fe Institute (renowned for its leadership as a theoretical institute) to discuss the BTS research program.	Santa Fe, NM
	(b) To discuss the Oregon Benchmark program with the Office of the Governor and state DOT officials and to explore what data BTS could provide them.	Portland, OR
	To speak at the Pacific Rim Conference on transportation issues.	Seattle, WA
12. 8/26-9/6/95	(c) To speak at a conference in Gothenberg on "Transportation, Communication and Health" and to meet with officials of OECD and the French Ministry of Transport to discuss the French projects on the transportation satellite national accounts BTS is preparing for the current BTS/Bureau of Economic Analysis joint project on the satellite account.	Gothenberg, SWE Paris, France

Travel taken by Director Lakshmanan thus far in FY 1996:

Dates of travel	Purpose	Destination
10/2-3/95	To attend the workshop arranged by the Institute of Statistical Science on transportation issues.	Raleigh, NC
10/19-23/95	(a) To meet with the Director of the Volpe National Transportation Systems Center to discuss assessment work on systems report. (b) To meet with the Massachusetts Institute of Technology Transportation Science Center faculty to discuss issues related to the role of information on transportation.	Boston, MA
12/7-13/95	To attend the board meeting of the National Center for Geographic Information and Analysis and give a speech at the University of Texas on GIS and transportation issues.	Los Angeles, CA Dallas, TX
2/21-24/96	To give a presentation to the Institute of Transportation Studies at the University of California at Berkeley on transportation issues.	San Francisco, CA

3/13-14/96	To meet with the Director of the Volpe National Transportation Systems Center to discuss the Intermodal Surface Transportation Efficiency Act.	Boston, MA
4/25-26/96	Opening speaker at the conference on "Restoring Mobility and Economic Vitality Following Major Urban Earthquakes."	Los Angeles, CA
4/29/96	To meet with the Executive Director of the Bay Area Metropolitan Planning Organization (MPO) to discuss data needs for MPO planning.	San Francisco, CA
4/30-5/7/96	To participate in and speak at a Plenary Session on Transportation Analysis and Spatial Development in the International World Congress of the Regional Science Association.	Tokyo, Japan
5/29-31/96	PLANNED - To meet with officials to discuss transportation indicator work.	Seattle, WA Olympia, WA
6/1-2/96	PLANNED - To give a presentation at the American Association of State Highway and Transportation Officials' Standing Committee on Planning meeting on data needs for state planning.	Coeur d'Alene, ID
6/4-5/96	PLANNED - To discuss and help develop a data program on "benchmark" assessment at the state level and Oregon MPO officials.	Portland, OR
6/6-7/96	PLANNED - (a) To attend the Transportation Research Board Committee Meeting. (b) Attend a workshop and present a paper on GIS and transportation modeling at the University of California.	Irvine, CA Santa Barbara, CA

Question. Please prepare the same level of detail for other staff travel in fiscal years 1995 and 1996 for all other BTS staff (include the traveler's name). What other staff travel is planned for the remainder of FY 1996?

Answer. We will provide a summary of other staff travel under separate cover, due to the work involved in preparing the summary. Senior staff travel for FY 1995 is as follows:

Dates of Travel	Staff Member	Purpose	Destination
4/17-20/95	Knisely	To attend and give a presentation at the Transportation Planning Model Applications Conference.	Seattle, WA

6/21/95	Knisely	To attend Presidential Management Intern Conference.	Boston, MA
9/13-15/95	Knisely	To discuss BTS and OAI contracting matters with senior officials at the Volpe National Transportation Systems Center.	Boston, MA
3/12-16/95	Fulton	To participate in the National Conference on Household Travel Surveys.	Irvine, CA
8/13-14/95	Fulton	To chair a session at the Annual Meeting of the American Statistical Association.	Orlando, FL
10/26-31/94	Schmitt	(a) To meet with the Northridge Earthquake Study Team. (b) To meet with officials at the California State University at Los Angeles. (c) To meet with the Los Angeles Department of Transportation officials.	Los Angeles, CA
11/14-16/94	Schmitt	To meet with Census officials at the Volpe National Transportation Systems Center and to meet with the North American Transportation Statistics Interchange.	Boston, MA Ottawa, CAN
12/5/94	Schmitt	To attend the Foreign Trade Data Users Group meeting.	New York, NY
6/29/95	Schmitt	To attend the Foreign Trade Data Users Group meeting and to meet with Port Authority of New York and New Jersey officials.	New York, NY
7/16-20/95	Schmitt	To attend commodity classification meeting at the Volpe National Transportation Systems Center and attend the Transportation Research Board summer meeting on ports and intermodal freight transportation.	Boston, MA

1995 Staff Travel

Dates of Travel	Staff Member	Purpose	Destination
5/15/95-5/15/95	Brandt, Carol	To talk to the Caliper group about geographic information systems (GIS) and databases on behalf of BTS.	Boston, MA
7/16/95-7/24/95		To attend and participate in the 1996 URISA Conference.	San Antonio, TX

11/13/95-11/17/95		To attend the Geographic Information Systems/Land Information Systems 1995 conference and exposition.	Nashville, TN
11/29/95-12/1/95		To discuss databases update/ history with University of Tennessee and preview GIS at Oak Ridge National Lab.	Knoxville, TN
3/24/95-3/24/95	Bush, Carolee	To attend American Association of Public Opinion Research Council meeting.	New York, NY
3/30/95-3/30/95		To make a presentation at the International Conference on Survey Measurement and Process Quality.	London, England
5/18/95-5/21/95		To attend American Association of Public Opinion Research meeting.	Ft. Lauderdale, FL
7/16/95-7/20/95		To attend the URISA 1995 Conference.	San Antonio, TX
8/12/95-8/18/95		To attend and participate in the American Statistical Association Joint Statistical meetings.	Orlando, FL
10/27/95-10/31/95		To attend the American Association of State Highway Transportation Officials Conference (AASHTO).	Norfolk, VA
11/17/95-11/19/95		To participate in the council meeting of the American Association for Public Opinion Research.	Chicago, IL
11/21/94-11/28/94	Feinberg, Terry	To assist BTS in the preparation of the BTS annual report.	Lincoln, NB to Washington, DC
12/12/94-1/7/95		To assist BTS in the preparation of the BTS annual report.	Lincoln, NB to Washington, DC
6/7/95-7/9/95		To assist BTS in the preparation of the BTS annual report.	Lincoln, NB to Washington, DC
4/6/95-4/9/95	Lapham, Susan	To attend the annual meetings of the Population Association of America.	San Francisco, CA

4/19/95-4/20/95		To meet with and observe training of field representatives of the U.S. Census Bureau Atlanta regional office who were conducting the BTS sponsored America Travel Survey.	Atlanta, GA
4/24/95-4/26/95		To meet with and observe training of field representatives of the U.S. Bureau of the Census.	Little Rock, AR
5/29/95-6/2/95		To attend graduate classes at the University of Michigan Joint Program in Survey Methodology to meet the requirements for BTS-sponsored graduate program in Survey Methodology.	Detroit, MI
6/5/95-6/24/95		To attend graduate classes at the University of Michigan Joint Program in Survey Methodology to meet the requirements for BTS-sponsored graduate program in Survey Methodology.	Detroit, MI
7/7/95-7/10/95		To meet with and observe field representatives of the U.S. Census Bureau who were conducting the BTS-sponsored American Travel Survey.	Springfield. IL
8/13/95-8/22/95		To attend the annual meeting of the American Statistical Association.	Orlando, FL
11/21/95-11/22/95	Mednick, David	Meeting at Volpe Center to discuss projects and project continuation in FY96. Also meeting at MA Institute of Technology to discuss Smart CD-ROM project	Boston, MA
7/16/95-7/21/95	Spear, Bruce	To attend URISA Conference.	San Antonio, TX
8/13/95-8/15/95		To attend GIS in Transportation Conference.	Tampa, FL
8/24/95-9/3/95		To meet with Volpe Center technical staff concerning FY96 PPA.	Boston, MA
6/20/95-6/24/95	Wack, Colleen	To attend the Presidential intern study tour.	Boston, MA
7/16/95-7/21/95		To attend the 1995 URISA Conference.	San Antonio, TX
9/15/95-9/20/95		To attend NSGIC Conference.	Albany, NY

3/16/95-3/16/95	Wright, Paula	Observe training on BTS CD-ROMs with the information "Hotline" staff at the Library and discuss having the "Product Profiles" printed by the Graphics Department at the Volpe Center.	Boston, MA
7/15/95-7/20/95		To attend and participate in the URISA Conference.	San Antonio, TX
9/12/95-9/12/95		To give a presentation on "Introduction to BTS" at the Presentation State Data Center.	Harrisburg, PA
2/7/95-2/7/95	Zarnetske, Robert	To meet with DOT personnel at the Volpe Center and with contractor working on DOT component at MIT.	Boston, MA
2/27/95-2/28/95		To visit Mike Meyer and to interview and film CD-ROM Smart project personnel.	Cambridge, MA
3/20/95-3/22/95		To meet with contractor responsible for Smart CD publication and provide guidance on content and presentation.	Albuquerque, NM
4/17/95-4/21/95		To attend a presentation at the Transportation Planning Modal Application Conference.	Seattle, WA
5/14/95-5/14/95		To attend an AASHTO Subcommittee on Information Technology 1995 Annual Convention.	Winnipeg, Canada
6/17/95-6/20/95		To attend and speak at National Association of Regions Councils Annual Meeting.	Cincinnati, OH
7/19/95-7/22/95		To attend Association of Metropolitan Org. Conference and to give a presentation at the Conference.	Pittsburgh, PA
8/19/95-8/21/95		To conduct primary data collection for a CD-ROM on Travel Demand forecast.	Los Angeles, CA

1996 Travel

3/31/96-4/4/96	Brandt, Carol	Attend and participate in the GIS for Transportation Symposium.	Kansas City, MO
4/11/96-4/17/96	Bradley, Kathleen	To provide customers service at BTS exhibit site and attend session on customer service at American Planning Association Conference.	Orlando, FL

3/29/96-3/29/96	Bush, Carolee	To participate in American Association for Public Opinion Research Council Meeting.	New York, NY
3/31/96-4/4/96	Lewis, Stephen	To attend and participate in the GIS for Transportation Symposium and to staff the BTS exhibit at the Symposium.	Kansas City, MO
2/15/96-2/16/96	Mednick, David	To meet with the University of Michigan Transportation Research Institute and Sloan Center to discuss the Motor Carrier Data Program, archiving of Motor Carrier Data, and the former ICC library.	Detroit, MI
4/9/96-4/10/96		To attend ITS symposium sponsored by MIT's Center for Transportation studies of which BTS is a member. Also met with Mark Stafford of Volpe about ITS and System Assessment Activities.	Boston, MA
2/22/96-2/22/96	Randall, Lisa	To attend a meeting at the Volpe Center to discuss BTS products, North American Statistics and new initiatives in this area.	Boston, MA
3/14/96-3/17/96	Spear, Bruce	To participate in National Center for Geographic Information & Analysis (NCGIA) Conference on Object Orientation in Navigable Databases.	Santa Barbara, CA
3/31/96-4/4/96		To participate in GIS for Transportation Symposium.	Kansas City, MO
1/18/96-1/18/96	Wright, Paula	To give a presentation on BTS products and services to the Florida DOT.	Tallahassee, FL
2/21/96-2/23/96	Zametske, Robert	To give a presentation to the Intermodal Association of North America about BTS activities in providing intermodal information on the internet.	Los Angeles, CA

FEDERAL HIGHWAY ADMINISTRATION

QUESTIONS SUBMITTED BY SENATOR HATFIELD

FISCAL MANAGEMENT TRACKING SYSTEM

Question. What have been the preliminary results of the implementation of the FMIS system? Has the information obtained from this system been reliable and useful? Have there been controls established to ensure the reliability and accuracy of the data?

Answer. The Fiscal Management Information System (FMIS) demonstration project tracking system was created over a period of several months in FY 1995 in response to requests by Congress and OMB for more accurate and timely information. By September 30, 1995, the FMIS demonstration project tracking system included 25 automated reports. These reports contain information most often requested by Congress and OMB. The information is both reliable and useful. The FMIS demonstration project tracking system is a subsystem with the FMIS system, thus the controls established for FMIS also apply to the demonstration project tracking system. Within the FMIS, controls are in place to ensure obligations do not exceed either the obligation limitation or the available funding. The Program Offices, Division Offices, and State Highway Departments use this system and reviews the various reports to ensure that the data reflected is accurate.

Question. Can FHWA use FMIS to identify potential projects for recission due to inactivity?

Answer. The FMIS can be used to compile a list of projects as potential candidates for rescission, but not with any great degree of accuracy. The fact that there has been no obligations, or no recent obligations, on a project or group of projects does not mean that the State is not planning to request obligations of funds in the very near future. Especially under the exemptions provided in the ISTEA, FHWA is not aware of the progress being made on many smaller projects. Thus the obligation of Federal-aid funds for several projects potentially targetted for rescission yesterday, could occur today and be recorded in FMIS.

Question. Is the system reliably for authorized and for appropriated demonstration projects?

Answer. Yes, the FMIS demonstration project tracking system is reliable for authorized and for appropriated demonstration projects.

Question. What information does FHWA believe is necessary before a decision is made to rescind or transfer a project's funds?

Answer. FHWA takes no action unilatterally to rescind or transfer a project's funds. There is no authority available to do so because most of the funds FHWA administers are apportioned by legislative formula to the States for projects which the States select. Some funds are specifically identified for specific demonstration projects and FHWA treats the Congressional earmarking inviolate and will not transfer the funds to another, more active or more critical project. In all instances, FHWA will only rescind or transfer funds in the Federal-aid account upon Congressional direction.

Identifying individual demonstration projects for rescission based on project merit or progress has proven to be most difficult. Past legislative actions to enact significant rescissions based on this approach have generally not been successful. Recognizing this, a rescission strategy based on treating demonstration projects as a group with targeted cuts in funds being shared by all projects in the group may prove to be more successful.

WOODROW WILSON BRIDGE

Question. The administration is requesting $30,000,000 to support section 104(I) of Title 23 -- the Woodrow Wilson Bridge. On what types of activities would these funds be spent? How was the $30 million figure derived? Is it necessary that these funds be matched by the affected communities (the States of Virginia, Maryland and/or the District of Columbia)? What types of matching funds does the administration [believe] will be forthcoming if the $30 million is provided?

Answer. The requested $30 million for 1997 will be spent on project final design activities, which include the preparation of final construction plans, specifications, and estimate for the selected alternative. The figure is an estimate of what it would cost to design a project of this magnitude under the project specific constraints. The monies requested for 1996 were for the Phase III Rehabilitation of the existing structure, completion of the Environmental Impact Statement (EIS) process, and preliminary engineering.

It is not necessary for the affected communities to match the available funds. The National Highway System (NHS) Designation Act states that the costs for planning, preliminary engineering and design, environmental studies and documentation, and final engineering for the project will be 100 percent Federal. The administration therefore does not expect matching funds to be forthcoming in accordance with the NHS Designation Act.

Question. When will a final design decision be made on the Woodrow Wilson Bridge? Briefly describe the existing designs being considered, with an estimated cost for each.

Answer. It is anticipated that the preferred alternative will be selected by the Coordination Committee (CC) in September 1996. The Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) are the official documents that identify and select a preferred alternative. These documents should be complete around January/February 1997.

The candidate alternatives in the Supplemental Draft Environmental Impact Statement (SDEIS) are:

No Build:	$304,900,000
All Tunnel:	$2,596,500,000 (w/o shoulders) $3,353,500,000 (w/shoulders)
Drawbridge/Tunnel	$2,101,100,000
Drawbridges	$1,485,400,000
Double Deck	$1,543,200,000
Southern High Bridge	$1,939,800,000

The CC has decided to add an alternative (a high level bridge on current alignment) which will be evaluated in another SDEIS that will be released to the public in August 1996 with public hearings in September. The SDEIS bridge alternatives listed above are 70' drawspan structures. The new high level structure on current alignment would be 135' above the navigational channel and would not require drawspans. Costs for this alternative are not available at this time.

Question. What is the administration's position regarding cost sharing, regardless of the final design selection for the new bridge?

Answer. The NHS Designation Act specifies that at a minimum the Federal share of the project will be the cost to replace the existing structure in kind, bringing it up to current safety design standards. It is estimated that this cost will be approximately $400 million including design. The Federal share of implementing the selected alternative has not been determined at this time. It is envisioned that the October 1, 1996, report to Congress will appropriately address the future Federal contribution to the project.

Question. What is the status of this project, i.e., draft environmental impact statement, final environmental impact statement, etc.? Has a preferred alternative been selected?

Answer. The SDEIS was released in January 1996. Another SDEIS is scheduled to be released in August 1996. The CC will recommend a preferred alternative in September 1996. The recommended preferred alternative is to be included in the October 1996 report to Congress. The FEIS should be issued around January 1997 with a ROD following 30 days later.

Question. How much of the $29.4 million authorized in ISTEA has been obligated? How has it been spent?

Answer. $16,256,014 of the $29.4 million has been obligated. $7,468,526 has been spent on construction/ rehabilitation work on the existing structure and $8,787,488 has been spent on the environmental impact statement preparation.

Question. In addition to the $1.5 billion or more estimated bridge replacement costs, what is the estimated cost of obtaining alternative financing, e.g., interest payments?

Answer. The cost estimate of $1.5 billion is in 1995 dollars. One factor not included in this figure is inflation, which is a significant cost given that construction is not projected to start until 1999 with completion scheduled no earlier than 2004. How these costs will be financed has not been determined. It is assumed that toll supported revenue bonds will be used and there will be interest costs associated with this financing approach. Such costs have not yet been established. Whether or not the interest on any bonds issued is taxable or tax-exempt will be a major factor in determining the costs of financing the project.

Question. What financial studies have been done to identify realistic funding sources for reconstructing this bridge?

Answer. The Department has conducted financial feasibility studies to comparatively evaluate the various alternatives for the replacement facility. These include bridges, tunnels and combinations of the two. The alternative configurations have substantially different costs for construction which will affect the evaluation as to which sources of capital are realistic. The evaluations done to date have looked at numerous sources of capital from both the private and public sectors including: Federal grants, Federal loans, State grants, State loans, credit enhancements such as guarantees, private equity, private debt sold in the bond market, and private construction loans as are used in turnkey development projects. Once a preferred replacement alternative is established, more detailed study of capital sources can be completed.

Question. How would the decision to use a toll facility affect the selection of a preferred alternative? What are the potential cash flows from a toll facility for the bridge? How would tolls affect the use of the bridge?

Answer. All of the replacement alternatives are assumed to have tolls. Only a reconstruction of the existing six lane facility would be toll free. Therefore, the decision to use tolls does not affect the decision among the preferred alternatives. The more costly replacement alternatives would likely have very high toll levels which would make these alternatives not feasible without Federal-aid substantially greater than one billion dollars. If tolls in the $1-$2 range were in place for the lesser-cost replacement alternatives, the cash flow from toll revenues would be sufficient to cover more than the project's total costs, if it were provided up front by bonds or other private capital sources. Current congestion on the existing bridge results in significant traffic diversions and use would likely increase with a facility having more lanes. Offsetting this would be the cost of a toll which in the $1-$2 range is projected to have only a limited impact on the use of the replacement facility.

Question. Funding for the bridge has come from FHWA's administrative overhead funds. Has this money also been used to pay for other high cost bridges identified by ISTEA?

Answer. The NHS Designation Act provides that administrative funds be deducted under Section 104(a) Title 23 for the Woodrow Wilson Bridge. This source of funding has not been used to pay for other high cost bridges identified by ISTEA.

Question. What responsibility do Maryland and Virginia have for helping pay for the rehabilitation and maintenance of the bridge?

Answer. The bridge is a Federally owned structure. Maryland, Virginia, and the District do not have any responsibility to help for the rehabilitation and/or maintenance of the bridge. (See section 402 (8)(B)(C) of the NHS Designation Act).

Question. If funding is not identified through alternative sources, such as tolls, what options exist, e.g., will the bridge be closed?

Answer. The 1994 inspection report indicates the bridge will require major rehabilitation or truck restriction by 2004.

GEOMETRIC DESIGN STANDARDS

Question. What alternative design standards are available to states to help them preserve their scenic resources? How has FHWA disseminated this information to the states?

Answer. Some of the alternative criteria that states could use to identify ways to preserve scenic, and historic resources, are the criteria used for roads in national parks. These criteria meet AASHTO criteria but are applied consistent with the recreational purpose of the road and generally for predominantly passenger and recreation vehicle traffic only. Other criteria are those developed specifically for certain highways or highway sections with special qualities, such as the Merritt Parkway and Route 101 in Oregon.

These and other criteria, or processes to identify criteria for special conditions, will be identified and discussed in the companion guide to the AASHTO standards. That guide will be widely distributed and publicized to state and local highway agencies as well as others. The guide will also be the core element of a training course that will be developed.

Question. What is the status of the companion guide to AASHTO's guidance? To whom has it been distributed?

Answer. The development of the Guide is being directed by a review committee consisting of representatives from state and local highway agencies, the National Park Service, Bicycle Federation of America, Public Citizen, the National Trust for Historic Preservation, the Advisory Council on Historic Preservation, and Scenic America. First draft of the guide will be ready by this September. This draft will receive wide distribution to state highway agencies and groups and organizations with interest in preservation or enhancement of environmental, scenic, historic and other cultural values.

Question. What data does FHWA have regarding the amount states pay to settle claims arising from geometric design defects?

Answer. The FHWA has no specific data on the amount states pay to settle claims related to geometric design defects.

Question. What action has FHWA taken to address states' liability concerns?

Answer. The issue of tort liability as it relates to highway design is one of the issues to be covered by the companion guide to AASHTO standards. The limited information gathered for the companion guide seems to indicates that the tort liability related to design is less of an issue than commonly believed. Generally speaking, in those instances where the designer has deviated from formally stated or normally accepted standards of practice, the provision of adequate documentation justifying the deviation results in the determination of design immunity. FHWA requires such formal design exception justification and documentation for critical design elements for projects on the NHS.

Question. How has the states' continued reliance on the AASHTO standards impacted their ability to balance mobility, safety and environmental concerns for road projects in scenic and historic areas?

Answer. The impact of the AASHTO criteria on states' ability to balance the sometimes competing needs for mobility, safety, and environment, depends greatly on the quality of early planning and project development phase. Where the early planning and project development has resulted in a scope of project that accurately reflects the purpose for the road, the needs it must meet as well as the constraints, the AASHTO criteria can be, and have been, applied in a manner to accommodate, without conflict, the mobility, safety, scenic, historic, and other cultural values. However, where early project phases do not clearly scope the project or identify special considerations and needs, the ability to provide flexibility in the application of design standards at the final design phases of the project becomes limited and is often the source of controversy. The critical importance of the early project scoping and planning process is a topic that will be covered in the companion guide to AASHTO criteria.

Question. In cases where roads cannot effectively serve as both scenic roads and major traffic thoroughfares, how should states resolve the scenic resource, safety and mobility conflicts?

Answer. The key to resolving the many, often conflicting, issues on highway projects is in the early project planning, development, and public participation process. By accurately scoping the project in the beginning and by clearly identifying its functional requirements, along with critical constraints, would avoid the often difficult geometric design issues created by poor scoping of the project in the beginning. Accurate early planning and project scoping will be discussed in the companion guide to the AASHTO criteria currently under development.

EMERGENCY RELIEF PROGRAM

Question. What are the primary restrictions in using emergency reflief funds versus normal federal-aid highway funds?

Answer. The primary restrictions in using ER funds are as follows: Generally, ER funds are used to repair and restore damaged highway facilities to predisaster conditions. When this is not feasible technically and economically, ER funds can be used to replace the damaged facility. In the case of roadway, the replacement facility is designed to current standards; however, use of ER funds to increase the capacity of roadway is not permitted. In the case of a bridge, the replacement facility is designed to current standards and, in accordance with 23 U.S.C. 120(e), ER funding may be used to provide for added capacity to accommodate design year traffic. In general, additional features, upgrades, or other changes to the function or character of the replacement facility from its predisaster condition require justification weighing the costs of the prior noted improvements against the probability of future recurring eligible damage and repair costs.

An additional restrictions is that 23 U.S.C. 125(b) limits ER funding to $100 million a State per disaster. Exceptions to the $100 million limit require action by Congress.

Question. If an emergency relief project encompasses an environmental review process, will ER funds typically cover improvements recommended from the environmental review process?

Answer. Eligibility of ER funds for improvements recommended from the environmental review process is determined on a case by case basis. In those instances where damaged highway facility cannot be repaired but must be replaced, the replacement highway facility recommended by the environmental review process generally would be eligible for ER funding provided the replacement facility was viewed as restoring the functions and service of the predisaster facility. If the replacement facility includes added features or functions beyond those of the predisaster facility, the eligibility of these items would be individually determined.

Question. If an environmental review process results in a proposed highway improvement which is generally considered ineligible for ER funds, how is such a conflict typically resolved?

Answer. If improvements are identified that are not eligible for ER funding, the State has the option of using other appropriate Federal-aid highway or State and local resources to fund the ineligible portion of the proposed improvements.

Question. When a project is eligible for ER funds, are all aspects of the project eligible for ER funds?

Answer. Those aspects of a project that restore the functions and service of the damaged highway facility are eligible for ER funding. There may be some added features or elements of a project beyond those of predisaster facility that will not be considered eligible for ER funding.

Question. Are ER funds capped at a predetermined level?

Answer. Under 23 U.S.C. 125(b), a maximum of $100 million in ER funding can be provided to a State for a disaster. The $100 million cap can only be lifted through legislative action by Congress.

Additionally, the FHWA may place a cap on the amount of ER funding provided to a specific ER project. This occurs when a damaged highway facility is repairable but the State instead decides to replace the damaged facility with an alternate facility. In these cases, the FHWA limits ER participation in the replacement facility to the amount of ER funding that would have been spent to repair the damaged facility.

Question. Congress provided California with $1.3 billion in ER funds to repair/construct damaged highway facilities during the Loma Prieta earthquake. Does FHWA foresee any funding shortfalls to complete ER projects?

Answer. Since ER funding is provided on a cost reimbursement basis, the final amount of ER funding needed will not be known until all repair work is completed and final billing submitted. With several major construction projects on-going for the replacement Cypress Freeway facility, it will be several years before final costs are determined. At this point in time, it is estimated that approximately $50 million in additional ER funding could be needed to complete all of the ER projects associated with the Loma Prieta earthquake.

Question. The City of San Francisco has opted not to rebuild the Embarcadaro Freeway that was damaged during the Loma Prieta earthquake in 1989. How much money was originally designated for the project? What is going to that money now?

Answer. The damage to Embarcadero Freeway was considered to be repairable. However, since the State and the City of SanFrancisco decided not to repair the facility but to instead replace it, the FHWA capped the ER funding it would provide towards the replacement facility at the amount it would have cost the ER program to repair the Embarcadero Freeway. This amount was $58.5 million. Additionally, the State and City decided not to repair the adjoining Terminal Separation Structure but to also replace it. The FHWA has established a $60.5 million cap for ER funding for the replacement facility for the Terminal Separation Structure. Currently, the State and City are developing a combined alternate facility to replace both the Embarcadero Freeway and Terminal Separation Structure.

Question. A few days after the earthquake, FHWA prepared a damage assessment report which provided a rough estimate to replace the Cypress Freeway along its original alignment at $306 million. What was the primary reason this alternative was not pursued?

Answer. When the Cypress Freeway structure collapsed, it was not clearly repairable, and replacement was necessary. As a first alternative, replacement with the same type of facility was considered, i.e., a double-decked structure on the existing alignment. However, in view of the calamitous failure of this type of structure, it was determined neither desirable nor practical to pursue this alternative. As a result, other alternatives were considered. The appropriate means for developing possible alternatives is through the environmental process and the accompanying public input. Through this process, alternative facilities, including those on different alignments, were fully examined. The alternative selected through this process was the relocation alignment currently under construction.

Question. Why didn't FHWA cap the ER funds for the Cypress project at $306 million, the cost engineers initially estimated it would take to replace the damaged structure?

Answer. The rough estimate of the cost was based on replacement with the same type of double deck structure on existing alignment. However, this solution was rejected as being neither desirable or practical. There was no reason to cap ER participation based on a rough cost estimate for an unworkable solution.

Question. As currently set-up, will ER funds always pay for any aspect of a project recommended by an environmental review process?

Answer. Generally, ER funding will pay for only those aspects of a project that are viewed as restoring the functions and service of the damaged facility.

Question. Does FHWA plan to modify any aspects of the Emergency Relief program? In what manner?

Answer. The ER program is a longstanding element of the Federal-aid highway program with well established practices and procedures for its administration. Although FHWA is not proposing major modifications to this process, it has undertaken rulemaking action to further update and clarify FHWA regulation covering this program.

CENTRAL ARTERY/TUNNEL PROJECT

Question. Does FHWA agree that the Central Artery is a $7.8 billion project? What does FHWA think are the true costs of this project?

Answer. FHWA agrees with the GAO that the appropriate figure for the total cost of the CA/T project is $10.4 billion which includes escalation. In fact, this was the figure reiterated by Secretary Peña in his testimony before the House Appropriations Subcommittee on Transportation and Related Agencies on April 18, 1996.

Question. What concerns has FHWA raised about the assumptions used in the state's estimate? What has the state done in response to these concerns?

Answer. The State's $7.8 billion estimate of project cost is a 1995 estimate and omits future escalation estimated at $1.2 billion over the life of the project. It also excludes about $1.0 billion in project costs which the State intends to collect from other State/local entities, and $0.3 billion in costs incurred for the Central Artery North Area (CANA) project covered by a separate environmental document and CA/T costs incurred before the 1991 Interstate Cost Estimate was reported to Congress. Finally the State's figure includes a $0.2 billion credit for sale of air rights which should be reflected as an income source rather than a cost reduction.

Massachusetts has revised the finance plan (June 1996) to include a table (page V of the Executive Summary) that illustrates that relationship between the $7.8 and $10.4 billion figures.

Question. Why does Massachusetts now exclude project costs that were included in prior estimates? Does FHWA agree with this practice?

Answer. As noted above, Massachusetts excluded from the total project cost estimate $1.0 billion in project costs which they are seeking to have funded by others, namely the Massachusetts Turnpike Authority and the Massachusetts Port Authority which also operates Logan International Airport. Although excluded from the total project cost estimate, these costs were included and considered in the cost of completing the project as an integral part of the finance plan. As noted, the finance plan has been updated to include a table that now shows these costs as part of the total project cost estimate.

Question. Is the state's cost containment program realistic? Are the contingencies adequate to account for future uncertainties?

Answer. The State's cost containment plan is very aggressive and comprised of a number of activities. The design-to-cost activity requires designers to keep estimated total construction costs within budgeted amounts. Value engineering continues to be emphasized. The Change Notice Evaluation Program requires the management consultant, the State and FHWA to analyze each proposed change to confirm its need and impact on cost and schedule. To prevent disputes and claims, or resolve them as objectively and quickly as possible, partnering techniques and an Alternate Disputes Resolution Board are being utilized. Semi-monthly senior management meetings which include FHWA aggressively seek ways to contain cost and stay on schedule.

Contingency costs are controlled by senior managers who are responsible to manage their contracts within budget and on schedule. A monthly Senior Management Report highlights latest cost and schedule information with the intent to identify early cost and schedule trends or problems. This report is reviewed monthly by senior project management and FHWA. Senior FHWA management is briefed quarterly. To date the tracking of overall costs contingencies appears reasonable.

Question. If FHWA has concerns about Massachusetts' cost estimate (questions 1-4), why don't it require the state to revise that estimate?

Answer. FHWA accepted the State's 1995 cost estimate as a sound basis for financial planning. FHWA's concerns were mostly directed at financial planning for completion of the project including items such as cash flow, likely reduced Federal funding in the post-ISTEA period, State and third-party fund sources, and shortfalls. For the past year FHWA and the State have worked together on financial planning to the point where FHWA has acknowledged that the State's February 1996 plan is sufficient to permit FHWA to proceed with project authorizations through the remainder of FY 1996.

Question. Does FHWA have the statutory or regulatory authority to require states to prepare cost estimates on major highway projects? If so, what standards if any does it require states to follow? If not, would such standards be helpful?

Answer. The provisions of 23 CFR 1.5 authorize the Administrator to require that the States furnish such information as deemed desirable in administering the Federal-aid highway program. This general provision would allow FHWA to require a State to prepare cost estimates on any major project as prescribed by FHWA.

Under Title 23, as amended by the 1991 ISTEA, States are required to prepare financially constrained Statewide Transportation Improvement Programs and metropolitan areas are required to prepare financially constrained transportation plans and improvement programs. In order to meet these requirements, preliminary estimates of cost are prepared.

In addition, in metropolitan areas over 200,000 population, major investment studies must be prepared for high-type highway or transit improvements of substantial cost that are expected to have a significant effect on capacity, traffic flow, level of service, or mode share at the transportation corridor or subarea scale. These studies must include evaluations of the cost-effectiveness of the various investments or strategies being considered.

FHWA is working with the States, local governments, metropolitan planning organizations, and others to provide the tools necessary for these entities to develop adequate financial planning techniques, including cost estimates, for transportation improvements.

Specific standards for cost estimates are not considered necessary.

Question. What will FHWA do if Massachusetts does not meet its cost containment goals?

Answer. FHWA continues to look for ways to limit total cost. The Massachusetts Highway Department (MHD) is now tracking overall costs using its Project Management Monthly System , which is reviewed with FHWA Massachusetts Division office staff on a monthly basis, and with FHWA top management on a quarterly basis.

If costs significantly exceed estimates contained in the finance plan the State must update its finance plan. The State would be required to identify what steps it proposes to deal with such an eventuality. FHWA would then react to the State's proposal.

Question. What is the federal responsibility for this project in terms of dollars and project description?

Answer. The CA/T Project has received more FHWA oversight than any other project in the country and probably more oversight than any project in the history of the Federal-aid highway program (which began in 1916). As with the other projects on the Interstate System, the CA/T Project is being planned, developed, and constructed by the State highway agency, in this case the MHD. The FHWA's oversight has been provided from the initial environmental studies through construction to ensure compliance with all Federal requirements before approval is given to use Federal-aid funds to reimburse the State for costs incurred on eligible work under a State-Federal project agreement. Oversight, including the authorization of the use of Federal-aid funds for project activities, is provided at the field level by the FHWA's Division Administrator in Boston.

The FHWA has long recognized the significant scope, complexity and cost of the CA/T Project and has assigned a special team in the Boston Division Office, on a full-time basis, to handle day-to-day management and oversight with the MHD. The size and composition of the team changes periodically based on project needs. Other personnel in the Boston office also work on the CA/T Project on an as-needed basis.

As the project progressed from preliminary design through detailed final design to construction, the FHWA has taken additional steps to enhance project oversight. These steps include increasing the Division Office staff assigned exclusively to the CA/T Project by two full-time positions, supplementing executive level quarterly briefings in Boston with other management briefings held in Washington Headquarters, increasing technical assistance provided from other field and Washington Headquarters staff on a monthly and sometimes more frequent basis, increasing team reviews of individual project phases and tasks, and more use of rotational assignments.

In addition to Division Office personnel, national experts and specialists from the FHWA's Washington Headquarters and other field offices provide advice and guidance at critical steps in the development of the project.

As detailed construction plans and specifications for each project are developed, FHWA engineers review and approve each item of work and are in continuous daily contact with the State's project staff. Division Office personnel have implemented a monthly construction inspection tracking system with the goal of obtaining monthly oversight inspections on all active construction projects. This inspection system is in addition to the daily contacts, reviews and meetings with the State's staff, management consultants, design consultants, and others during the design development on the projects.

The Federal-aid highway program operates on a reimbursement basis. The FHWA reimburses the MHD for the Federal share of the State's expenditures for eligible expenses. Thus, the FHWA has an opportunity to review expenditures before making payment of the Federal share.

Through the end of FY 1995 about $3.9 billion in Federal-aid funds have been obligated representing 85 percent of the CA/T project cost to date. Under the remaining ISTEA authorizations for FY 1996 and 1997, the State's finance plan indicates about $1.1 billion in Federal funds will be available for the CA/T project. Assuming Massachusetts receives $450 million per year in Federal funding in the post-ISTEA period (FY 1998 - 2005), the State estimates that about $2.6 billion (71 percent) of the remaining project cost in the period would be Federal funded.

Question. What are the major issues holding up FHWA approval of a finance plan? Will FHWA be asking Massachusetts to either revise its plan or produce another one?

Answer. In an April 30, 1996, letter to Massachusetts Secretary Kerasiotes Federal Highway Administrator Slater indicated that FHWA found the February 23, 1996, version of the finance plan adequate for FHWA to continue project authorizations through the end of FY 1996, barring any major changes or events affecting the assumptions used in developing the plan.

Administrator Slater requested that the State prepare an updated finance plan acceptable to FHWA by October 1, 1996 in order for FHWA to continue project authorizations in FY 1997. The State has modified the plan (June 1996) to include a table that addresses the estimated total cost of the project.

Question. How closely will FHWA look at the fiscal capacity of the state to absorb added debt? What if the shortfall goes higher? How high would it hae to go before Massachusetts could not cover it?

Answer. On July 31, 1995, the Massachusetts Legislature passed the Metropolitan Highway System (MHS) legislation. This State legislation mandated that a financial feasibility study of the MHS financing be completed by December 1996. The major scope elements of the study are to determine the additional levels of funding contributions from Massport and Masspike, determine future operating and maintenance costs for facilities being constructed, review various tolling options, and make recommendations for the establishment of a MHS in the Greater Boston Area.

The study focus is on the additional fund contributions from other State authorities and the mechanisms to accomplish this. The study does not require an analysis of the CA/T project cost estimate. This joint State and turnpike authority study is being conducted by a New York firm called Commonwealth Capital Partners. There are no interim reports required or expected before December. FHWA has requested the State to accelerate completion of the study and plans to review its recommendations in conjunction with MHD Finance Plan Updates.

In addition, FHWA is closely monitoring the fiscal capacity of the State. In his April 30, 1996, letter to Massachusetts Secretary Kerasiotes, Administrator Slater has indicated that while FHWA will permit the use of the Advance Construction (AC) provisions in support of the State's FY 1996 schedule, FHWA will closely monitor cash flow. As a prerequisite to the FHWA's concurrence in the award of AC contracts, the State must demonstrate that it has sufficient cash, binding contracts with third parties, and/or unencumbered bonding authority to cover total contract costs. Moreover, contractor payments under Federal-aid contracts cannot be made conditional on the availability of Federal funds.

If cash flow shortfalls rise significantly above those contained in the finance plan, this would trigger an update of the finance plan. In preparing the current finance plan, the State considered but ultimately rejected a number of measures such as project scope reduction and completion extension. The adopted finance plan relies on a short-term borrowing strategy to deal with the identified potential cash flow shortfalls. That was a State decision that we consider acceptable for planning purposes. We have not attempted to speculate as to a point where the State might choose to adopt a strategy other than the one proposal.

Question. How can FHWA approve advance construction contracts when doing so will create the shortfalls shown in the plan?

Answer. AC authorizations do not provide any actual commitment or obligation of Federal funds. An AC authorization is simply a "reservation" of future eligibility, if and when Federal funds become available. Because there is no obligation of Federal funds at the time of AC authorization, the State must continue to obtain funding commitments covering the full cost of each project. As a prerequisite to FHWA's concurrence in the award of AC contracts, the State must demonstrate that it has sufficient cash, binding contracts with third parties, and/or unencumbered bonding authority to cover total contract costs.

Use of the AC provisions will not, in itself, create any shortfalls in view of the FHWA controls to be applied on each and every AC contract awarded.

Question. Why is this significant funding shortfall surfacing now? Why didn't FHWA know about it sooner?

Answer. Over the last 10 years (since 1985) more than 14 major additions have been made to the project's scope, adding $2.6 billion to the original cost. These additions include such items as HOV lanes, expansion of the project limits to resolve other capacity problems as required by environmental regulations, and redesign of the Charles River Crossing bridge as the major gateway to the City of Boston. With the project design now almost 70 percent complete, FHWA feels that future scope changes will be minimal.

The remaining $2.5 billion of increased cost, however, is due to the inflation rate since 1985. Inflation will also continue to raise the project's cost as it will raise the price of all goods and services. Building the CA/T Project quicker saves on inflation, but unfortunately, this cannot be easily accomplished in the middle of a downtown urban environment.

As an engineering organization, FHWA is continuously reviewing cost. The reviews indicated for some time that the State was facing a severe cash flow funding shortfall in the short-term (through 2001) if the State continued with its CA/T construction schedule.

For the past year FHWA encouraged the State to develop a cash flow analysis that would highlight the problem. This was ultimately developed and quantified in the State's February 1996 finance plan. The State has now taken steps to cover the shortfall by seeking third party funding and obtaining legislative approval to issue bonds for the CA/T project.

Question. Can Massachusetts both maintain a balanced statewide program and build the Central Artery project?

Answer. The finance plan calls for maintaining a $400 million statewide program in addition to completion of the Central Artery project. The proposed short-term borrowing strategy is considered a feasible mechanism for dealing with the near term cash flow shortfalls that could result from that dual commitment.

Question. What will be the impact be of reducing Bridge and NHS funding for statewide projects? Will Massachusetts devote additional state money? What assurances has the state given FHWA?

Answer. The State considered and rejected this option as being inconsistent with their goal of maximizing infrastructure improvements throughout the State. The finance plan, even under the base funding scenario, calls for continuation of a $400 million program outside of the CA/T project.

Question. How can Massachusetts increase its contributions to both the Artery project and the statewide program at the same time?

Answer. The State has publicly committed to a $400 million (State plus Federal funds) annual statewide program in addition to the CA/T Project, which is similar to the level of recent years. They have made this commitment based the projected success of their aggressive cost containment program, and by obtaining additional funding from third party sources, by the State MHS legislation, and additional State bonding, and creative use of Federal funding through techniques such as Advance Construction.

Question. What, in FHWA's view, is a "balanced" program in Massachusetts? What percentage of federal funding would have to go to the Artery project before FHWA would contend the program is no longer balanced?

Answer. FHWA has accepted the State's commitment to a $400 million per year statewide program for projects other than the CA/T. That $400 million program will be composed of a mixture of Federal and State funds.

Question. What does FHWA think of the option discussed in the finance plan to reduce the size of the statewide program as a way to help cover projected Central Artery project shortfalls?

Answer. The MHD does not plan to reduce its $400 million Statewide program. However, if necessary, under the options discussed in the finance plan the State may elect to shift funds to the Artery project. This is a State and local decision subject to review by FHWA and the Federal Transit Administration for conformance with Federal requirements. FHWA is looking to the State to provide a balanced program which considers critical needs such as the Artery project and other projects in the State. To achieve this outcome, FHWA is aggressively supporting a cooperative effort between the State and local officials in the planning process, including financial planning.

Question. Is Massachusetts adequately maintaining its Interstate system? Will Central Artery construction affect the condition of Massachusetts' Interstate system?

Answer. The Interstate System in Massachusetts consists of 566 miles, 429 free miles and 137 toll miles. Each year Massachusetts, like all other States, must certify to FHWA that they are adequately maintaining the Interstate System in accordance with 23 CFR 635.507. FHWA reviews the State's annual submission as to the adequacy of the State maintenance program's level of resources and activity. To date, Massachusetts' program has been found satisfactory and FHWA does not believe that CA/T construction will result in deficient or unsatisfactory maintenance of the State's Interstate System in the future.

FIELD OFFICE RESTRUCTURING

Question. What changes do you envision occurring in FHWA's field structure as a result of DOT's restructuring effort?

Answer. The guiding principles of the Secretary's restructuring initiative are: (1) improved customer service, (2) increased efficiency and reduced costs, (3) adherence to NPR recommendations, and (4) an increased focus on assisting our major cities. While specific implementing details are still being developed, we expect our restructured field organization to reflect streamlined, intermodal one-stop shopping for our customers through a consolidation of separate modal program delivery functions at both the regional and State levels; expanded FHWA/FTA services to metropolitan areas; administrative resource sharing among the surface mode field elements; and a reduction in the number of facilities through co-location or outright closing of offices.

Question. What opportunities for streamlining FHWA's field structure exist? Is it necessary to have an office in every state?

Answer. The FHWA's western regions have streamlined their administrative support functions by consolidating each major function and its resources in one of the regions, which then services the other regions in that function. The eastern regions are following suit. Moreover, the FHWA will participate fully in the co-location of the various surface mode offices where they are not already co-located and where co-location makes sense from the standpoint of customer service and costs. We believe that our State-level division offices perform a very valuable customer service function for our customers and partners and that any potential closing of those offices should carefully weigh the benefits of closing them against the loss of services that our customers and partners have come to expect.

Question. What is the purpose of the regional offices? Can those functions be either devolved to the division office level or consolidated in headquarters?

Answer. Our Regional offices function mainly as service centers. Their primary purpose is to provide program and technical assistance to our division offices, States and local agencies. Program and technical assistance is provided to improve quality, to promote best practices, to introduce new technology, and to assist our division offices in monitoring implementation of the federal-aid highway programs. Technical training, legal advice, and state-of-the-art expertise are provided to the divisions and our partners and customers. Another function of the regional offices that has become much more prevalent and important is the coordination with other DOT modes in the development of intermodal projects and with other Federal agencies in the development and implementation of interagency agreements. The services delivered from our regional offices are unique in that they are highly specialized, not required on a routine basis, or both. As such it would be inefficient to staff each division office sufficiently to provide these unique functions. On the other hand, consolidation of these services within Headquarters would make their delivery less flexible and timely. Many of these consultative services must be delivered on sight, thereby making time and distance important considerations. We believe that decisions affecting the continued existence of our regional offices should take into account both the frequency and time sensitivity of the need for the specialized consultant services they have to offer. We have found the three level structure of divisions, regions, and Headquarters an effective and efficient approach to the performance of our required functions.

Question. Does FHWA favor consolidating its field operations with those of the Federal Transit Administration? What are the advantages and disadvantages to doing this?

Answer. The FHWA and FTA jointly administer regulations pertaining to such areas as metropolitan planning, environmental procedures, and public mass transit projects, all of which involve close, continuing coordination and/or joint approvals. Consolidation of FHWA and FTA facilities and staff would strengthen the existing cooperative relationship between the two agencies, facilitate one-stop shopping for our customers and more efficient utilization of resources, and increase service to metropolitan cities that lack an FTA and/or FHWA presence. One disadvantage might be that with its limited field staff, deploying resources to additional cities and delegating certain functions to FHWA division offices could diminish FTA's ability to maintain adequate control of its oversight responsibilities.

FTA and FHWA offices will be combined through the co-location of regional and metropolitan offices where they are presently located in separate cities and/or buildings, such as Chicago; the assignment of staff to the larger metropolitan cities where only one of the 2 agencies or neither of them is now located, such as New York City, Philadelphia, and Los Angeles; and the expansion of responsibilities of the FHWA division offices to carry out certain functions on behalf of the FTA and other surface transportation modes, such as grant monitoring.

Question. How will DOT reconcile its goals of both streamlining the field structure and improving service? How do you improve service with less?

Answer. Co-locating facilities and staff and sharing resources, together with the downsizing of targeted occupations vis-a-vis customer service functions, will enable our field organization to carry out its program delivery mission both more effectively and more efficiently.

Question. What portion of the $25 million savings is FHWA responsible for? Will any further savings goals or targets be established?

Answer. The FHWA is responsible for $14 million of the $25 million savings. At this time no further savings goals or targets have been established.

Question. Will restructuring of FHWA's field offices result in greater decision making authority being delegated to the field?

Answer. The vast majority of Federal-aid highway program decisionmaking authority has long been delegated to the FHWA's division offices. As a result of the Secretary's streamlining initiative, the FHWA has recently identified additional program authorities that could be more efficiently handled in the field. These opportunities have either been implemented or are in the process of being implemented. In addition, the field restructuring initiative will include program delivery and administrative cross-servicing among the surface transportation field offices. It is possible that where FHWA division offices are requested to perform services for FTA and NHTSA, which do not have State-level offices, these services may require appropriate delegations of authority to FHWA as part of any cross-servicing arrangements. These authorities, if any, would be promptly redelegated to the field.

APPORTIONING FEDERAL HIGHWAY FUNDS

Question. What are the major problems associated with the current process for distributing federal highway funds?

Answer. Major problems with factors contained in apportionment formulas have been pointed out in a November, 1995 GAO Report titled "Highway Funding: Alternatives for Distributing Federal Funds". These include the use in formula calculations of factors which are based, at least in part, on outdated information, are unresponsive to changing conditions, or may not accurately reflect the current extent or use of the nation's highway system. The formulas also are asked to support long-term objectives, some of which may be mutually supporting while others may be in conflict. These objectives include maintaining highway infrastructure and improving air quality while simultaneously safeguarding historical funding shares and ensuring that States receive an equitable return from contributed funds.

Question. How could the funding distribution process be revamped to eliminate current problems?

Answer. There is no certain answer as to eliminating any perceived apportionment problems. This will have to be looked at in light of the goals and objectives of the programs that are eventually contained in reauthorization.

Question. What changes would FHWA recommend to improve the distribution of highway funds?

Answer. The FHWA has no definite recommendations for formula changes at the present time. We will be looking at the distribution of Federal-aid highway funds in the Department of Transportation proposed legislation for reauthorization of Federal-aid funds in the post-ISTEA period, e.g. FY 1998 and beyond.

Question. What are the advantages and disadvantages of using actual needs as a basis for distributing highway and bridge funds?

Answer. The principal advantage of using needs as a basis for apportioning funds is that it directs the funds to those States with the greatest relative need for highway and bridge funds. The disadvantage is that it could penalize those States that have been foremost in investing their own funds to maintain and improve their highway and bridge systems.

Question. What are the best proxies for highway and bridge needs and why?

Answer. Generally the extent (mileage) and use (VMT) of the highway network have been viewed as acceptable proxies for investment needs.

Question. What would be the maximum feasible revenue collections that could be returned to the states?

Answer. That decision can only be made in the context of reauthorization of the entire program, as priorities are determined among the various categories of assistance. However, the Administration firmly believes there is a strong role for the Federal government in funding transportation. We do not foresee, at this time, the feasibility for turning back any of the current Federal taxes to the States.

Question. What program funding needs to be retained at the national level and why?

Answer. We will be looking at program categories for the Federal-aid highway program in the Department of Transportation proposed legislation for reauthorization of Federal-aid funds in the post-ISTEA period, e.g. FY 1998 and beyond.

Question. What would be the minimum funding level and optimal distribution basis for accommodating purely national funding needs?

Answer. In reauthorization we will be seeking maximum funding levels for the Federal-aid highway program and trying to achieve methods of funding distribution which best meet national goals and objectives.

EQUITY ACCOUNTS

Question. Two equity funding adjustments--minimum allocation and 90 percent of payment adjustment--are intended to ensure that states receive back most of their contribution to the Highway Trust Fund's highway account. Please explain the difference between these two equity funding adjustments.

Answer. There are two basic differences in the Minimum Allocation and 90 Percent of Payment Adjustments equity accounts: (1) The Minimum Allocation account guarantees a State 90 percent of the percentage of its tax payments while the 90 Percent Payment Adjustment account guarantees each State 90 percent of its payments; (2) Although both accounts are based on current fiscal year apportionments and previous fiscal year allocations; the 90 Percent Payment Adjustment account includes Minimum Allocation, Hold Harmless, Donor State Bonus, Interstate Reimbursement, Public Lands and Congestion Mitigation/Air Quality funds in its base whereas Minimum Allocation does not. For both minimum allocation and 90 Percent of Payments Adjustment, the year of tax payments used in the computation is 2 years behind the year of apportionment, e.g., 1995 tax payments will be used in computation of FY 1997 apportionments.

Question. How many states have received minimum allocation funds under ISTEA's authorization? (Please list states and amount for fiscal years 1992 through 1996.)

Answer. Twenty-five States have received minimum allocation funds under ISTEA's authorization for fiscal years 1992 through 1996. The information is provided in the following chart.

MINIMUM ALLOCATION APPORTIONMENTS
FY 1992 THRU FY 1996 AND ESTIMATED FY 1997

STATE	FY 1992	FY 1993	FY 1994	FY 1995	FY 1996	ESTIMATED FY 1997
ALABAMA	24,283,712	23,063,301	32,169,869	30,659,980	7,475,200	15,494,000
ARIZONA	46,943,184	35,588,129	35,822,806	56,381,095	33,680,488	36,034,000
ARKANSAS	46,853,490	30,859,557	33,203,236	42,639,342	16,051,875	23,753,000
CALIFORNIA	135,126,746	146,143,270	189,625,109	321,283,318	79,250,280	103,455,000
FLORIDA	159,082,913	135,967,289	161,433,342	205,227,242	82,176,770	92,173,000
GEORGIA	80,121,375	61,884,629	70,827,291	96,065,341	71,066,717	61,469,000
INDIANA	61,219,913	48,441,208	50,565,606	75,625,592	44,600,256	47,994,000
KENTUCKY	10,551,973	15,274,713	5,874,951	46,545,760	24,910,807	16,655,000

LOUISIANA	4,030,342	4,881,652	0	2,874,052	0	0
MAINE	1,209,959	0	0	· 0	0	0
MARYLAND	. 0	36,668,333	44,733,894	0	0	0
MICHIGAN	62,606,271	51,727,851	69,466,216	80,892,559	9,043,181	39,395,000
MISSISSIPPI	22,371,121	9,028,501	15,900,812	22,288,208	0	0
MISSOURI	56,988,903	21,155,468	27,935,873	51,055,638	0	0
NORTH CAROLIN	65,949 471	51,952,238	57,657,110	72,205,409	28,195,826	44,881,000
OHIO	98,837,335	65,109,697	47,632,347	48,662,045	9,333,422	0
OKLAHOMA	36,377,321	21,026,850	15,350,532	31,909,613	75,926	4,912,000
OREGON	1,257,963	0	12,568,802	0	15,381,501	0
PENNSYLVANIA	0	36,392,287	53,342,235	0	0	0
SOUTH CAROLIN	0	4,377,603	24,876,853	0	13,653,277	31,863,000
TENNESSEE	40,094,300	20,980,986	17,289,123	36,875,219	7,126,735	3,663,000
TEXAS	125,464,106	79,827,584	119,393,086	144,526,798	0	39,036,000
VIRGINIA	0	69,394,195	77,643,165	0	33,747,886	48,841,000
WASHINGTON	0	70,188,485	27,350,078	0	0	0
WISCONSIN	56,615,426	40,526,209	43,936,417	61,105,252	22,001,045	28,182,000
TOTAL	1,159,987,824	1,080,460,035	1,234,618,753	1,426,822,463	497,771,192	660,000,000

Question. What factors cause a state to qualify for minimum allocation funds in one year but not in another year?

Answer. Three basic factors determine which States qualify for minimum allocation funds. The relationship of these factors to each other is the most critical element to be considered. The three factors are (1) a State's current fiscal year apportionments and previous fiscal year allocations of funds as specified by the apportionment formula; (2) a State's contributions into the Highway Trust Fund's Highway Account and its relation to contributions into the Account by all States; and (3) the amount of current fiscal year apportionments and previous fiscal year allocations received by all States as specified by the apportionment formula.

Question. How many states have received the 90 percent of payment adjustment under ISTEA's authorization?

Answer. In fiscal year 1994, two States (Alabama and Florida) received the 90 percent of payment adjustment apportionment.

Question. Why would the 90 percent of payment adjustment provision be rarely triggered?

Answer. The 90 percent of Payment Adjustments has rarely been triggered through FY 1996 because the total apportionments used in the calculations exceeded ninety percent of the total Highway Account of the Highway Trust Fund tax revenues. This will not be the situation in FY 1997 when 90 percent of payment adjustments are estimated to total $2.595 billion and be distributed among 28 States. This is because total Highway Account tax revenues had increased to $20.419 billion in FY 1995 the year used for FY 1997 90 percent Payment Adjustments and apportionments used in the 90 percent Payment Adjustment are estimated to be $17.5 billion.

Question. What would cause a state, such as South Carolina, to fall below the 90 percent return threshold in 1993 given the minimum allocations and 90 percent of payment adjustment safeguards?

Answer. South Carolina fell below the 90 percent return threshold because it received $29,856,776 in discretionary allocations in FY 1992. These FY 1992 discretionary allocations entered into the calculation for FY 1993 for minimum allocation and 90 percent payment adjustment. The calculations for minimum allocation and 90 percent payment adjustment are made based on current year apportionments and prior year allocations.

Question. What funding redistribution would occur if the 90 percent of payment adjustment provision were increased to 95 percent? 98 percent?

Answer. At 90 percent of payment adjustment in FY 1997, an estimated $2.595 billion would be received by 28 States. If it were a 95 percent payment adjustment in FY 1997, then an estimated $3.420 billion would be received by 32 States. If it were a 98 percent payment adjustment, then an estimated $3.930 billion would be received by 33 States.

UNOBLIGATED HIGHWAY FUNDS

Question. What programs have been most impacted by the imposition of obligation limitations and why?

Answer. Traditionally, those programs earmarked for specific purposes as opposed to programs with considerable funding flexibility addressed to infrastructure development, have been the most impacted by imposition of obligation controls. Also, those programs which require more coordination or, in effect, are less under the State's direct control, have been impacted more than those program funds that can be used for a variety of projects under the State's direct management. Locally sponsored projects, especially where the State is not legally able to provide the match, often have to wait until all coordination and financing arrangements are completed.

Question. What is the total amount of Minimum Allocation funds that states could but did not obligate?

Answer. The information is provided in the following chart.

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

STATUS OF FUNDS PROVIDED FOR
MINIMUM ALLOCATION 90%

AS OF MAY 31, 1996

STATE	TOTAL AVAILABLE	OBLIGATIONS DURING FY 1996	OBLIGATIONS TOTAL TO DATE	UNOBLIGATED BALANCE	UNPAID OBLIGATIONS
ALABAMA	117,652,062.00	4,126,380.17	109,831,596.56	7,820,465.44	49,101,426.57
ALASKA					
ARIZONA	210,415,702.00	5,535,333.63	161,669,378.51	48,746,323.49	46,603,579.93
ARKANSAS	171,607,500.00	14,795,450.00	143,168,270.00	28,439,230.00	42,159,986.00
CALIFORNIA	871,428,723.00	144,738,508.60	645,304,133.84	226,124,589.16	157,819,326.35
COLORADO					
CONNECTICUT					
DELAWARE					
DIST. OF COL.					
FLORIDA	743,887,556.00	66,418,578.00	711,555,007.00	32,332,549.00	225,265,417.00
GEORGIA	379,965,353.00	36,410,884.89-	236,885,571.42	143,079,781.58	162,293,412.93
HAWAII					
IDAHO					
ILLINOIS					
INDIANA	300,452,575.00	38,536,131.20	294,391,450.20	6,061,124.80	88,894,929.36
IOWA					
KANSAS					
KENTUCKY	103,158,204.00	7,471,140.79	50,766,577.61	52,391,626.39	29,627,538.26
LOUISIANA	11,786,046.00	17,495.65-	9,391,105.77	2,394,940.23	2,152,469.77
MAINE	1,209,959.00	60.49	1,129,031.72	80,927.28	1,290.91
MARYLAND	81,402,227.00	722,709.00-	70,411,159.00	10,991,068.00	32,001,759.00
MASSACHUSETTS					
MICHIGAN	273,738,078.00	6,774,283.11	271,410,200.10	2,327,877.90	46,080,606.66
MINNESOTA					
MISSISSIPPI	69,588,642.00	361,562.00	67,370,502.00	2,218,140.00	14,756,497.00
MISSOURI	157,135,882.00	4,310,064.55	132,311,012.77	24,824,869.23	27,068,144.37
MONTANA					
NEBRASKA					

NEVADA					
NEW HAMPSHIRE					
NEW JERSEY					
NEW MEXICO					
NEW YORK					
NORTH CAROLINA	275,960,054.00	17,118,651.00	229,166,253.00	46,793,801.00	74,101,323.00
NORTH DAKOTA					
OHIO	269,574,846.00	49,200,872.90	200,677,417.84	68,897,428.16	60,754,921.85
OKLAHOMA	104,740,242.00	960,555.92	92,484,274.00	12,255,968.00	36,480,971.29
OREGON	29,228,266.00	3,503,898.74-	2,382,380.48	26,845,885.52	1,055,315.06
PENNSYLVANIA	89,734,522.00	426,433.44	85,683,893.65	4,050,628.35	20,140,259.39
RHODE ISLAND					
SOUTH CAROLINA	42,907,733.00	266,816.00-	25,721,072.76	17,186,660.24	16,684,319.05
SOUTH DAKOTA					
TENNESSEE	122,366,363.00	13,621,125.12	87,337,691.75	35,028,671.25	55,365,339.78
TEXAS	469,211,574.00	10,433,265.79	418,918,794.75	50,292,779.25	138,752,158.66
UTAH					
VERMONT					
VIRGINIA	180,785,246.00	11,394,190.00	89,184,025.37	91,601,220.63	39,379,333.24
WASHINGTON	97,538,563.00	1,922,919.43	96,042,160.07	1,496,402.93	20,558,209.17
WEST VIRGINIA					
WISCONSIN	224,184,349.00	17,972,940.45	208,429,409.58	15,754,939.42	37,229,654.60
WYOMING					
PUERTO RICO					
TOTAL	5,399,660,267.00	375,189,640.31	4,441,622,369.75	958,037,897.25	1,426,359,189.80

Question. What factors contribute to Minimum Allocation funds not being fully used?

Answer. We are not aware of any instances of Minimum Allocation funds not being fully used. However, Minimum Allocation funds, because of their flexibility and the fact that they are totally under the State's control, are often reserved by the State until after regularly apportioned funds are exhausted or used to supplement regular funding. Minimum Allocation funds have so few restrictions that the States can use them on almost any type of project, and therefore no State is likely to lapse such funds.

Question. What is the total amount of demonstration project funds that states could but did not obligate?

Answer. The unobligated balance for Authorized Exempt Demonstration Projects as of September 30, 1995, is $1,770,257,512.48.

Question. What is the total number of projects and funds tied up with demonstration projects that show no obligation of available funds?

Answer. For Authorized Exempt Demonstration Projects as of September 30, 1995, that show no obligation of available funds, the total number of projects is 96 and the amount of unobligated funds is $407,006,478.

HIGHWAY PROGRAM PAY AS YOU GO

Question. What is the current gap between the balance in the highway account and claims against this balance?

Answer. At the close of FY 1995, the Federal-aid highway and highway-related safety programs funded by the Highway Account of the Highway Trust Fund had unpaid authorizations of $44.197 billion, while the Highway Account itself had a balance of $9.421 billion.

Question. Why does a gap exist?

Answer. The gap exists because the Highway Account of the Highway Trust Fund and its taxes are extended 2 years beyond the authorizations for the Federal-aid highway program. This is done in order to pay for the program, i.e. the program is authorized through FY 1997 while the taxes are collected through FY 1999. Congress, in setting up the program, did not want to collect taxes before they were needed.

Question. Given current revenue projects, how long would it take to payoff current claims (unpaid authorization)?

Answer. Under current revenue projections, the Highway Account would have sufficient funds to pay off unpaid authorizations under ISTEA by February or March of 1999.

Question. How much, if any, of the claims (unpaid authorizations) could be canceled?

Answer. Funds that are obligated, but not yet reimbursed may not be canceled, since the US Government has, at the point of obligation, legally committed itself to pay the Federal share of projects. However, unobligated funds, i.e., those which have been apportioned or allocated to the States but not committed through obligation, could be canceled but only through passage of special legislation to take the funds back from the States.

Question. If most of the current federal highway revenue collections were devolved to the states, what would this mean in terms of outstanding claims (unpaid authorizations)?

Answer. Most of the current taxes to the Highway Account could not be devolved to the States. The Highway Account will have unpaid authorizations of $44.6 billion at the end of FY 1997 and all of the revenues going to the Highway Account will be needed to meet those commitments except for about $15 billion of the estimated Highway Account taxes in FY 1999 which could be devolved or turned back to the States.

ALLOCATING THE COST FOR HIGHWAY DAMAGE

Question. What is the status and expected completion date of FHWA's highway cost allocation study?

Answer. The Highway Cost Allocation (HCA) Study is on schedule for completion in September 1996. All research is underway and frequent meetings are being held with the consultant team as well as with the Department's internal policy oversight group. A Transportation Research Board peer review committee has been meeting to evaluate technical data and methods being used in the study as well as alternative methods for analyzing highway-related costs and their relevance to various policy issues.

Question. What are the preliminary findings to date?

Answer. The various phases of the HCA research are all being conducted concurrently, and no preliminary findings on the overall highway cost responsibility of different vehicle classes are available. At a HCA workshop conducted in December 1995, the status of all major highway cost allocation research was discussed; data that will be used in estimating the responsibility of different vehicle classes for several major types of highway-related costs were presented, but highway costs attributable to different vehicle classes cannot be estimated yet. Most data collection and model development activities are scheduled to be completed in June, at which time we can begin estimating highway cost responsibility and user fee equity for different vehicle classes.

Question. Is the current effort validating the 1982 study findings that the largest trucks were underpaying in relation to the highway damage they caused?

Answer. As noted earlier, we have no preliminary findings yet from the on-going HCA Study to either validate or invalidate 1982 HCA Study findings. Changes in the composition of the highway program and in the Federal highway user fee structure since 1982 suggest that heavy trucks likely continue to pay less than their proportionate share of Federal highway user fees, but it is too early to tell whether the relative share of user fees paid by heavy trucks is greater or less than it was in 1982.

Question. What alternative user fee structures are being evaluated?

Answer. In addition to evaluating the current Federal highway user fee structure, different rates for existing user fees will be evaluated to identify the types of changes that would be needed to improve the overall equity and efficiency of existing user fees. New user fees likely will be evaluated, including one or more weight-distance tax alternatives.

Question. What are the primary advantages associated with alternative user fee structures?

Answer. User fees can be evaluated against several criteria including (1) the amount of revenues they produce, (2) ease of administration, (3) compliance costs, (4) ease of enforcement, (5) their equity both within various vehicle classes and across different vehicle classes, and (6) the extent to which they reflect actual vehicle costs. In general the advantages of the existing user fee structure are that both users and the Internal Revenue Service are familiar with existing taxes. Administrative and compliance burdens are small and significant revenues can be collected, especially from the fuel tax. The fuel tax raises by far the most revenue of all the Federal highway user fees. A disadvantage of the existing user fee structure is that it does not reflect truck related costs very well. Modifications to the rates of existing taxes could improve the equity of the current structure, but significant inequities would remain because none of the fuel taxes capture the effects of both vehicle weight and distance traveled.

Other user fee options, especially weight distance taxes, more directly reflect the weight-related costs of different vehicle classes. A combination of weight-distance taxes with user fees such as fuel taxes that reflect non-weight-related costs would be more equitable than the current user fee structure. The disadvantages of weight-distance tax options are that administrative and compliance costs may be higher than existing taxes, they could be subject to higher evasion rates than existing taxes, and large tax increases on certain vehicle classes might be necessary to achieve significant increases in equity. State experience has shown that implementing and maintaining weight-distance taxes is difficult politically.

FUTURE HIGHWAY INVESTMENT NEEDS

Question. Excluding capacity needs to maintain performance at the 1993 level, what is the annual investment needed to preserve Interstate highways?

Answer. The estimated cost for system preservation under the cost-to-maintain scenario in the 1995 report Status of the Nation's Surface Transportation System: Conditions and Performance (C&P Report) is $4.2 billion annually for pavement preservation. This does not include the cost for bridges, which is an additional $2.5 billion annually.

Question. How does the cost needed for Interstate highway preservation compare to recent annual investments for Interstate highways?

Answer. The annual cost to maintain the condition and performance of the Interstate highway system including bridges is estimated to be $12.7 billion. The portion of this cost required to preserve the pavement and bridges is $6.7 billion. The capital outlay on the Interstate highway systems in 1993 was $9.5 billion. Of this total amount, $5.3 billion was spent for system preservation, $2.8 billion for capacity requirements, and $1.4 billion for safety, environmental, and economic development reasons.

Question. Excluding capacity needs to maintain performance at the 1993 level, what is the forecasted annual cost needed for preservation of the National Highway System (NHS)?

Answer. The estimate for system preservation in the cost-to-maintain scenario is $7.9 billion annually for pavement preservation and $3.4 billion for bridges.

Question. How does the cost needed for NHS preservation compare to recent annual investments for the highways constituting the NHS?

Answer. Since the NHS has not existed in the past, we do not have a record of past expenditures on the NHS. In the future such expenditures will be tabulated.

Question. Why does DOT's 1995 status report rely on a functional highway system presentation of needs and not also display needs based on the NHS and those highways funded through the Surface Transportation Program?

Answer. The 1995 C&P Report is based on 1993 data, at which time the NHS had not been approved. Historically the C&P Report has been based on functional systems rather than on Federal-aid programs. In the future, investment requirements for the NHS will be reported separately.

Question. If local road investment needs were deducted from the annual investment requirements, what would the annual investment needs for federal-aid highways?

Answer. Roads and streets functionally classified as local and as rural minor collector are not eligible for federal-aid funding. From the $49.7 billion total annual needs in the cost-to-maintain highways scenario, $6.9 billion are subtracted for roads not eligible for Federal-aid funds. This leaves a total of $42.8 billion. Nothing is subtracted from the $5.1 billion bridge needs, as all public road bridges are eligible for Federal-aid bridge program funds.

THE CONDITION OF THE NATION'S INTERSTATE HIGHWAYS

Question. Why is slightly over 30 percent of our Nation's Interstate highways in less than fair condition?

Answer. A substantial portion of the Interstate pavement is in poor or mediocre condition because available funding has not been adequate to provide a higher level of pavement condition. It should be noted that of this 30 plus percent, only about 8 percent is actually in poor condition. It is likely that even in the best-maintained highway systems there will always be a small percentage of pavement that has just reached the poor category and that is awaiting improvement. The rest of this percentage is in the mediocre category, which is pavement that may not require immediate action but which will need improvement in the near future to preserve usability.

Question. What is needed to bring the interstate highways into premier condition?

Answer. In the 1995 C&P Report, the economic efficiency scenario is designed to correct all highway deficiencies which are economically worthwhile. The amount of funding for the Interstate system that would be required to achieve this level of service is $12.5 billion annually. This is in addition to an estimated $3.7 billion annually to correct all Interstate bridge deficiencies.

Question. What percentage of urban Interstate highways are classified as being in good or very good condition?

Answer. About 45.3% of the urban Interstate pavements are in good or very good condition. These are pavements that are not likely to require improvement in the near future.

Question. What percentage of rural Interstate highways are classified as being in good or very good condition?

Answer. About 50.7% of the rural Interstate pavements are in good or very good condition. These also are pavements that are not likely to require improvement in the near future.

Question. What level of investment is needed to bring the overall Interstate highway network up to a good or very good condition classification?

Answer. Pavements classified as good or very good are likely to be fairly new or have been resurfaced or rehabilitated in the recent past. To bring all Interstate pavements to this level would require an increase in funding approximately to the economic efficiency level, which is $4.7 billion annually for pavement improvements and preservation. To achieve a comparable condition for bridges would require an additional $3.7 billion, for a total of $8.4 billion annually.

MEASURING PERFORMANCE

Question. What efforts are underway to develop national transportation performance indicators?

Answer. There are several related efforts underway to develop national transportation performance indicators. The Office of the Secretary as a part of its National Transportation System initiative has begun a performance measurement effort to develop specific examples of performance measures for the national system. DOT held a conference last November to present preliminary results of this effort and to get feedback from our customers and partners on the performance measures proposed. The Department plans to issue a report within the next few months on the State of the National Transportation System which discusses our progress in this area.

Within FHWA, the focus has been on the National Highway System. An FHWA working group is currently developing national performance measures for this system which will be presented to our customers and partners for consideration shortly. The results of this effort will be included in the agency's next Strategic Plan as required by the Government Performance and Results Act.

Question. What are the potential candidate measures for assessing the performance of the overall transportation network?

Answer. The potential candidate performance measures for both the National Transportation System (NTS) and the National Highway System (NHS) are still being developed. At DOT's NTS Performance Measurement Conference in November, the results of internal DOT discussions on performance measures and work done by a consultant on NTS performance measures were both presented for discussion. There is general agreement that performance measures are needed related to national goals for the economy, defense, access to goods and services, safety, and the environment. The report on the State of the National Transportation System will identify preliminary performance measures which can be developed with existing data, as well as examples of what more ideal measures could be.

Question. How could transportation performance measures be used to direct tax dollars to programs that produce results?

Answer. First, the task of identifying performance measures forces all participants to be clear about the intended purpose and goals of a program, which is a valuable discipline.

Second, performance measures related to program goals can provide insight into whether a program is achieving the results it was intended to achieve and how efficiently it is achieving these results. When actual program performance is measured against a set of performance indicators agreed to at the time a program is initiated, one gains valuable information on whether a program is accomplishing its goals and at what cost. However, monitoring performance measures is simply an indication that a program is working or that it isn't. When a goal for a program is set, it is based on a set of assumptions about the operating environment, e.g., population growth, travel forecasts, weather conditions. While failure to meet a goal may be due to poor program design or to a breakdown in implementation, it may also be due to errors in forecasting some of the major factors that influence the goal. For example, if the goal is to improve pavement condition on the NHS by a certain amount but travel increases significantly more than expected, the goal might not be met even with good program design and implementation. The reverse situation is also possible - the program might significantly exceed its goal if travel declined or winter weather was particularly mild. In-depth program evaluation is needed before any major decisions are made on reallocation of tax dollars.

Question. If performance indicator results were linked to funding, how could the validity of the underlying data be assured?

Answer. FHWA is aware of the need to validate data used to measure performance and will be considering alternative techniques for ensuring data validity and reliability as a part of its strategic planning process. A description of the methods that will be used will be included in our next strategic plan as required by the Government Procurement and Results Act.

Question. Besides using performance indicators to allocate resources, what other uses could be made of the indicators?

Answer. We anticipate that performance indicators will have a number of uses beyond allocating resources including communicating the results of our programs to our partners and customers, and providing information that can be used to improve the way we manage our programs.

Question. What data collection burden would be associated with the development and use of national transportation performance indicators?

Answer. There is clearly a data collection burden associated with the development and use of national transportation performance indicators. However, FHWA already collects a great deal of data and we expect to meet most of our data needs with this data. We will have a better understanding of our data needs after we have completed our strategic and performance plans and have identified the performance goals and indicators that we will be using to monitor performance.

HIGHWAY RESEARCH AND DEVELOPMENT (SAFETY, PAVEMENTS, AND STRUCTURES)

Question. Please break down in detail the expected use of the $826,000 requested under "other costs" on page 77. How was this amount determined? How could these costs be reduced?

Answer. The FHWA's R&T programs typically share proportionately in expenses associated with crosscutting efforts benefiting the overall R&T program, including support for the Transportation Research Board (TRB), and the Small Business Innovation Research (SBIR) program. The FHWA provided more detailed information on these expenses in R&T Technical Support justification included as a non-add line item in the 1997 budget request. As noted in the justification, these expenses are funded through the other costs shown in the Highway R&D and ITS budget justifications, such as the $826,000 included in the safety R&D budget. Below are the items and associated expenses (in thousands of dollars) for FY 1996 and FY 1997:

	1996	1997 Estimate
TRB Correlation Services	2,694	2,800
SBIR Program	4,818	6,540
R&T Report Center	300	325
ADP Support Services	1,736	1,910
Editorial Support Services	552	580
Total	$9,900	$12,155

About half of the R&T Technical Support expenses are associated with FHWA's legislatively-mandated SBIR contribution. The Small Business Research and Development Act (PL 102-564) requires all Federal agencies with a Research and Development budget in excess of $100 million to participate in the SBIR program. The purpose of the program is to stimulate technological innovation and use small businesses to develop and commercialize technical innovations. The SBIR program is supported through a set aside based on research, development and technology funds spent on extramural research, for example, on research conducted by non-Federal entities. The legislatively-mandated SBIR set aside was 1.5 percent in FY 1994, 2.0 percent in FY 1995 and FY 1996, and will be 2.5 percent in FY 1997. The research portion of the State Planning Research (SPR) funds expended by States constitutes extramural research using Federal research funds under the SBIR program. About 30 percent of FHWA's annual assessment for the SBIR program is associated with the SPR program; FHWA pays the SBIR assessment in full from the RD&T programmatic funds without drawing any support from the SPR program. While FHWA's contribution to the SBIR program are used to carry out highway research and technology development, the mandatory nature of the contribution makes it difficult to reduce these expenses.

The FHWA's support for TRB is the second major cost item included in R&T Technical Support expenses. The TRB uses these funds to carry out a comprehensive program for advancing transportation RD&T among State and local governments, as well as the private sector. In the safety arena, TRB sponsors committees on

- transportation safety management,
- vehicle user characteristics,
- operator education and regulation,
- pedestrians,
- simulation and measurement of vehicle and operator performance,
- bicycling,
- traffic law enforcement,
- alcohol, other drugs, and transportation,
- traffic records, and accident analysis,
- motor vehicle technology,
- safety and mobility of older drivers, and
- traffic safety in maintenance and construction operations.

The TRB sponsors conferences and workshops on safety issues, typically with the help of committee members and TRB staff including the upcoming Symposium on Visibility and Human Factors, and the 30th Human Factors in Transportation Workshop. The FHWA believes the activities carried out under R&T Technical Support are critical to the success and the effectiveness of the RD&T program.

Question. What could be done to reduce the costs used to support the National Crash Analysis Center? Please explain in detail the purposes and amounts of

NHTSA's and FHWA's expenditures for this facility. Could this facility be moved to Turner Fairbanks to reduce costs? If not, please explain why.

Answer. The FHWA believes current funding level of National Crash Analysis Center(NCAC) is reasonable and prudent. The NCAC's crash test library provides the public with a one-stop location for obtaining test films and data from the FHWA and NHTSA crash test programs. The creation of the NCAC reduced the staff effort to maintain the more than 15,000 films and reports and to respond to the more than 50 requests received per month, improved customer service by dramatically reducing turnaround time, and provided a climate-controlled environment that will increase the longevity of the films. The NCAC's work in applying finite element modeling in crash simulation is central to the FHWA efforts to improve the quality of roadside hardware while at the same time reducing the costs (through reductions in the numbers of crash tests required). The NCAC serves as the focal point for this activity. The synergy created by the partnership of FHWA, NHTSA, and GWU in the NCAC, and subsequent cooperative agreements with private industry, have resulted in advances that would not have occurred without the support of Federal funding.

The FY 1996 funds obligated for the support of the NCAC totaled $896,775. This included $248,663 of FHWA funds and $648,112 of NHTSA funds. In addition, George Washington University contributed $46,500. This funding was used for: maintenance and support of the NCAC technical library; creation, validation and maintenance of finite element vehicle models for use in vehicle safety studies that assist NHTSA in developing testing criteria for the New Car Assessment program and the FHWA in evaluating and improving the safety of roadside hardware designs; utilization of hospital data from the William Lehman Research Center in Miami to study injury mechanisms for special studies of air bag performance, side impacts, and injury pattern causes; and a visiting scholars program to bring national and international researchers together to study highway safety problems and solutions.

Moving the NCAC to the Turner-Fairbank Highway Research Center (TFHRC) would not reduce the costs of operation. Currently, the TFHRC does not have the amount or type of space necessary to accommodate the NCAC. Even if space were available, the funds necessary to install the necessary facilities (climate-controlled film library, vehicle preparation area, massively parallel computers, etc.) would far outweigh any cost savings due to reduced contract overhead. One major benefit of the existing cooperative agreement is the quality of the facilities that GWU provides.

Question. On page 74 of the budget request FHWA is seeking funds to conduct research on "identification and evaluation of driver errors." How is this research different from that which NHTSA has conducted or research conducted by JPO? Why is research on near-miss crashes important?

Answer. This FHWA study focuses on basic human performance issues that may be implicated in drivers' maneuvers leading to crashes and near-misses. This project will result in a taxonomy of specific human factors variables that can be used as inputs to the behavioral model being developed for the Interactive Highway Safety Design Module for incident and accident prediction. In addition to being used as model inputs, the data will help FHWA researchers identify and recommend highway design changes to mitigate these errors. Collection of near-miss data is a critical component of this process. Because the number of near-misses is greater than the number of accidents, data collected from these drivers will significantly augment the database on specific behaviors that cause accidents. The FHWA differs from those conducted by NHTSA and JPO, in that it emphasizes highway design characteristics associated with incidents and accidents and highway design solutions as countermeasures to increase safety.

Question. Will the study on driver compliance with traffic control devices (page 74) include a consideration of yield right-of-way signs? What will be the scope and direction of this study as it pertains to violating this traffic control signal? Will this study survey the extent to which this control signal is complied with?

Answer. Yes, the study will consider the yield right-of-way sign. It will examine drivers' abilities to detect, comprehend, and appropriately maneuver in traffic when this sign is present. The study also will consider possible changes in the warrants for its use and application to help increase the sign's effectiveness. One dependent measure that will be employed is the degree of compliance.

Question. What assurance of cost-shared funds do you have for FHWA projects on UV/Fluorescent technology? What are you doing to obtain these funds?

Answer. The FHWA has presented preliminary research findings at meetings of various groups, such as the National Committee on Uniform Traffic Control Devices, AASHTO Subcommittee on Traffic Engineering, and Transportation Research Board. FHWA researchers are preparing additional technical papers. Through this work, the FHWA is setting the stage for forming a private/public consortium in FY 1997. A number of entities have expressed interest in the consortium. The FHWA plans to hold an informational meeting for all interested parties. At the time the aquisition announcement is issued, an informational meeting will be held for all interested parties.

Question. What amount was spent on night vision enhancement R&D during FY 1996? Please compare this figure with your FY 1997 request.

Answer. The FHWA has committed $372,000 for ongoing research on night vision enhancement, including $250,000 in FY 1995 and $121,999 in FY 1996. This research includes an exploratory study of the effects of the UV/fluorescent technology on driver performance, as well as an initial analysis of the costs and potential benefits. The $500,000 requested for FY 1997 will fund the formation of a public/private consortium, which will study and research the many complex issues surrounding this technology.

Question. Please outline the details of your strategy to foster the innovation of UV/Fluorescent technology into actual highway use. Do you plan to test the technology in other locations besides in Maryland?

Answer. The ongoing study, "Safety Evaluation of UV-Activated Delineation" will be testing visibility of pedestrians under UV headlights this summer, and installing and evaluating UV/fluorescent pavement markings at a test site in Quantico, Virginia this fall. These data will be used in the cost/benefit analysis to provide a preliminary look at the cost effectiveness of UV-activated technology. The consortium will identify deployment strategies for this technology which may include field demonstrations in other selected locations.

While the UV/fluorescent technology generally requires a parallel deployment of roadway infrastructure (fluorescent delineation) and vehicle (UV-headlights), this is not entirely the case. Fixed roadway lighting that has a UV component may prove to be effective in preventing pedestrian accidents, since most pedestrian clothing fluoresces under UV light due to laundry detergent additives. This has important potential safety benefits, since about half of the approximately 6,000 pedestrian fatalities per year occur at night. Fixed lighting with UV could be used independently of the development of UV headlights, and could be demonstrated in selected sites on a nationwide basis.

Question. Why has the Department not requested funding for pedestrian and bicycle safety for FY 1997? What was the amount of funds spent in this area during each of the last three fiscal years?

Answer. The Department has not requested funds for the pedestrian and bicycle safety program for FY 1997 because the funds necessary to fully-fund the pedestrian and bicycle safety high priority research area were obligated in FY 1996. This included $740,000 of funding originally planned for FY 1997. The amount of FHWA safety R&D funds obligated for pedestrian bicycle safety during each of the last three years is: FY 1994 - $884,162, FY 1995 - $1,089,274, FY 1996 - 2,000,000. Funding from other sources spent on pedestrian and bicycle safety were: FY 1995 - $150,000 NHTSA, $125,000 FHWA (Planning), $40,000 FHWA (National Highway Institute); FY 1996 - $138,000 NHTSA, $15,000 FHWA (Planning).

Question. What is the amount of carryover funds that will be spent during FY 1997 on pedestrian and bicycle safety? On which projects? What is the next step in this program area?

Answer. All safety R&D funds will be obligated in FY 1996, including $740,000 on pedestrian and bicycle safety. The FHWA will use the $740,000 to conduct a bicycle trip generation study to project usage of proposed bicycle facilities, continue the development of a National Awareness Campaign including support for the Partnership for a Walkable America, and disseminate completed products from the pedestrian and bicycle safety programs. A new high priority research area (HPA) titled, "Engineering Improvements for Enhanced Safety and Operations," is planned for FY 1998. One major focus for this new HPA will be the integration of pedestrians and bicyclists into the planning and design of highway facilities. This will build upon the work in the current HPA and will seek to mainstream the results into standard practice. This new HPA will also include an examination of new technologies to improve pedestrian and bicycle safety. Potential areas to be investigated include detection and information display technologies such as infrared, LED, and video, implementation of planning and evaluation tools in a Geographic Information System environment, and the application of 3D/4D visualization techniques for assessing proposed pedestrian and bicycle facilities.

Question. What speed-related research projects to be conducted by the Office of R&D and safety program initiatives to be conducted by the Office of Highway Safety are planned for FY 1997? Please specify the amounts and specific funding source of these monies. In particular, what projects do you have planned to improve the methodology for setting speed limits?

Answer. Three speed related efforts are planned for FY 1997. They are: "An Investigation of the Impacts of Differential Speed Limits for Autos and Trucks," with an estimated cost of $300,000 to be funded from R&D Safety funds; "A Field Evaluation of Speed Setting Criteria," with an estimated cost of $150,000 to be funded from OTA Safety funds; and "An Examination of Alternative Speed Setting Criteria" to be conducted through the Transportation Research Board with an estimated FHWA contribution of $250,000 from OTA Safety funds. All three of these efforts should provide insight into the methodologies used to set speed limits for automobiles and trucks.

Question. Please break down the expected use of the $2.185 million requested under "other costs" on page 85. How was this determined for which purposes? How could these costs be reduced?

Answer. The FHWA's R&T programs typically share proportionately in expenses associated with crosscutting efforts benefiting the overall R&T program, including support for the Transportation Research Board (TRB), and the Small Business Innovation Research (SBIR) program. The FHWA provided more detailed information on these expenses in R&T Technical Support justification included as a non-add line item in the 1997 budget request. As noted in the justification, these expenses are funded through the other costs shown in the Highway R&D and ITS budget justifications, such as the $2.2 million included in the pavements R&D budget. Below are the items and associated expenses (in thousands of dollars) for FY 1996 and FY 1997:

	1996	1997 Estimate
TRB Correlation Services	2,694	2,800
SBIR Program	4,818	6,540
R&T Report Center	300	325
ADP Support Services	1,736	1,910
Editorial Support Services	552	580
Total	$9,900	$12,155

About half of the R&T Technical Support expenses are associated with FHWA's legislatively-mandated SBIR contribution. The Small Business Research and Development Act (PL 102-564) requires all Federal agencies with a Research and Development budget in excess of $100 million to participate in the SBIR program. The purpose of the program is to stimulate technological innovation and use small businesses to develop and commercialize technical innovations. The SBIR program is supported through a set aside based on research, development and technology funds spent on extramural research, for example, on research conducted by non-Federal entities. The legislatively-mandated SBIR set aside was 1.5 percent in FY 1994, 2.0 percent in FY 1995 and FY 1996, and will be 2.5 percent in FY 1997. The research portion of the State Planning Research (SPR) funds expended by States constitutes extramural research using Federal research funds under the SBIR program. About 30 percent of FHWA's annual assessment for the SBIR program is associated with the SPR program; FHWA pays the SBIR assessment in full from the RD&T programmatic funds without drawing any support from the SPR program. While FHWA's contribution to the SBIR program are used to carry out highway research and technology development, the mandatory nature of the contribution makes it difficult to reduce these expenses.

The FHWA's support for TRB is the second major cost item included in the R&T Technical Support expenses. The TRB uses these funds to carry out a comprehensive program for advancing transportation RD&T among State and local governments, as well as the private sector. The TRB sponsors numerous committees on pavement design, construction and maintenance. The TRB sponsors conferences and workshops on pavement issues, typically with the help of committee members and TRB staff including the upcoming Eighth International Conference on Asphalt Pavements, and the Sixth International Purdue Conference on Concrete Pavement-Design and Materials for High Performance. The FHWA believes the activities carried out under R&T Technical Support are critical to the success and the effectiveness of the RD&T program.

Question. Please provide two specific examples of substantial cost savings that have resulted from research emanating from the structures R&D program and two examples of cost savings resulting from the pavements R&D program. Be certain to estimate the amount of savings in each case.

Answer. Two noteworthy examples of cost samples resulting from Structures R&D are in the areas of earthquake safety and the durability of geosynthetics for highway applications. Two noteworthy examples from Pavements R&D are in the areas of portland cement concrete pavements and asphalt concrete pavements.

Earthquake Safety: Prior to 1992, FHWA invested approximately $2 million in an R&D effort to improve the seismic safety of highway bridges. In addition to the development of what now serves as the basis for the American Association of State Highway and Transportation Officials (AASHTO) earthquake design standard for new highway bridges, simple earthquake retrofit measures were developed to increase the seismic safety of existing bridges. The California Department of Transportation has implemented much of this simple technology which, in spite of significant dollar losses resulting from the 1989 Loma Prieta and 1994 Northridge earthquakes, paid large dividends in terms of saving the majority of bridges in the epicentral regions from damage or collapse. For example, in the Northridge earthquake, approximately 2,000 bridges were in the area of strong ground shaking. Of those, only six failed and four others were so badly damaged that they had to be replaced. Total cost to the state for bridge repairs was approximately $100 million. There was a clear indication that bridges that had been retrofit and most bridges that had been designed and constructed using the current specifications withstood the violent shaking without incident. Although no exact figures are available, it can be projected that if only 100 bridges (a very low projection) of the 2,000 in the affected area were saved because of implemented technology from the State and Federal R&D programs, $1 billion dollars in savings accrued.

Durability of Geosynthetics for Highway Applications: The use of geosynthetic products has been steadily increasing the last decade for the construction of reinforced fills such as retaining walls, steepened slopes, landfills, or for the containment of hazardous waste. A study to develop test and evaluation methods to determine the durability of synthetic materials for use in slope and embankment stabilization and bridge foundation stabilization has shown that geosynthetics tested to date are considerably more durable than originally estimated at the start of the study. The results from this study will have tremendous benefits regarding the use of cost effective geosynthetic technologies as well as spill over benefits for other types of polymer products used in transportation applications.

In a letter to the Federal Highway Administrator, the Secretary of Transportation for the Washington State Department of Transportation states "....it has been estimated that highway construction savings resulting from this study could be on the order of $70,000,000 a year nationwide, which results in $1,000,000 to $2,000,000 a year savings for our state alone based on our current program levels. Considering that the current total cost of this research project is only $1,300,000, I feel that this is a wise investment of our research funds."

Portland Cement Concrete Pavements: Over the last several years FHWA has conducted a sizeable research program in Portland cement concrete and concrete pavements. This program has produced products that have resulted in substantial cost savings. Two examples of the products from the concrete research effort are improved guidelines for (1) pavement structural design and (2) concrete pavement joints. In the former case the improvements to the concrete pavement design procedures were validated using the Long Term Pavement Performance (LTPP) database. The result of using the LTPP performance data is an improved design equation that "narrows the error band" normally associated with the design process. Designs with a higher confidence level will result in better performing more cost effective concrete pavements. With four lane concrete pavement costs of $1 million plus per mile, these savings can exceed hundreds of millions nationally over the pavements' life. These design improvements are currently being considered for adoption by AASHTO. As a result of their participation in LTPP, Arizona DOT has changed their concrete pavement joint design. Arizona estimates that this change will save between $2 million and $4 million during the construction of freeways in the Phoenix/Tucson area.

Asphalt Concrete Pavements: One of the products of the Strategic Highway Research Program was the Superpave design system for asphalt concrete. A key component of Superpave is the performance based system for the selection of the liquid asphalt cement that is based upon the high and low temperatures that the pavement will experience. The LTPP program is collecting asphalt pavement temperatures at forty locations across North America. The data collected at these locations has provided a much more accurate model for predicting pavement temperatures to use in the selection of the liquid asphalt. The impact of this product is a reduction of $5 to $10 per ton of asphalt in the northern States, and annual savings of approximately $60 million.

Question. You are requesting $1.2 million for a new initiative called "focussed research" under the structures program. Why can't this research be conducted using in-house resources? How was this need met in fiscal year 1996? How much did you spend on these short-term studies during fiscal year 1995?

Answer. Focused research refers to short term, one to two year turn-around studies that are not included in the longer term planning of research studies. Focused research studies develop solutions to specific, technical issues raised by FHWA field or headquarters offices. In some cases this research can be conducted using in-house resources. Often, however, in-house staff and facilities are committed to ongoing projects thus creating the need to opt for an alternate performing source. In fiscal year 1996 FHWA staff supported requested studies in flood/scour mitigation; evaluation and correction of an AASHTO design equation for development length of prestressed concrete bridge girders; establishment of a protocol for evaluating the performance and durability of new bridge coatings that must meet stringent OSHA and EPA requirements; and characterized properties of materials removed from existing bridges. Approximately $450,000 was spent on these studies in fiscal year 1995.

Question. What was the amount of the request for structures R&D and pavements R&D that was submitted to OMB?

Answer. The amount requested for structures R&D ($22,000,000) and pavements R&D ($23,200,000) reflects the Administration's strong commitment to advanced materials, design, monitoring, inspection and other technologies for improved physical infrastructure.

Question. How are the recommendations of the National Science and Technology Council reflected in the request for structures and pavements?

Answer. The National Science and Technology Council's (NSTC) recommendations concerned two specific thrusts -- high-performance materials and diagnostics -- which combines nondestructive evaluation, materials science, and computational structural modeling. Aside from coordinating FHWA research in these areas through the NSTC Subcommittee on Physical Infrastructure

Renewal, FHWA also coordinated with other Federal agencies, primarily the National Institute of Standards and Technology and the National Science Foundation.

The FHWA focuses its research and development on (1) developing technology to inspect nondestructively and quantitatively the condition of the infrastructure so that owners can rapidly define structural inadequacies, and (2) using high performance materials (concrete, steel, advanced composites, etc.) to repair the deficiencies more rapidly and efficiently. The NSTC's recommendation for diagnostics matched the FHWA theme of conducting research to "find it and fix it;" the "it" being the deficiencies, and concentrated our efforts in this area.

This emphasis on diagnostics research supported by the NSTC is reflected in the $10 million increase in the request for structures R&D in fiscal year 1997. The major features of this increase include the application of fiber optics and other embedable sensors in bridges to monitor traffic loadings and the deterioration of structural performance. Also included is a program to improve reference test methods for nondestructive evaluation (NDE) validation. A third area is nondestructive testing (NDT) for materials characterization. As opposed to physical flaw detection, this type of NDT measures changes in materials properties such as the aging of steel by fatigue or corrosion in reinforced concrete. Finally, there is a program to apply advanced computer modeling methods developed in the aerospace industry to predict the response of bridge members to variable loadings from traffic and environment factors such as wind gusts. This will provide more effective designs for new structures, and better prediction of deterioration and fatigue life in existing structures.

The NSTC recommendations also are reflected in the pavements R&D budget. The fiscal year 1997 request includes $2.5 million for exploratory research in diagnostics paralleling the efforts in structures. An additional $1.5 million will support development of high-performance materials for pavements.

Question. Please show in a table entire FHWA program and sources of all funds used for structures, highway safety and pavement research in both FY 1996 and expected for FY 1997. Include pooled-research funds in your response as appropriate.

Answer. The information is presented in the following table (millions of dollars), including pooled funded studies support by the research portion of the State Planning and Research Program:

	1996 Planned			1997 Estimate		
	GOE	ISTEA	Total	GOE	ISTEA	Total
Structures						
Structures R&D	12.6	0.4	12.6	22.0		22.0
Heated Bridge Decks		4.0	4.0		4.0	4.0
Seismic Research		2.0	2.0		2.0	2.0
Timber Bridge Research		0.9	0.9		1.0	1.0
SHRP Implementation*		3.0	3.0		3.0	3.0
Technology Assessment and Deployment	3.7	2.0	5.7	3.7	2.0	5.7
Pooled Funded Studies		0.3	0.3		0.1	0.1
	16.3	12.6	28.9	25.7	12.1	37.8
Highway Safety						
Safety R&D	8.6	4.1	12.7	8.8	4.0	12.8
All-weather Pavement Markings		2.0	2.0		2.0	2.0
SHRP Implementation*		1.0	1.0		1.0	1.0
Technology Assessment and Deployment	2.6	3.4	6.0	3.1	2.4	5.5
Pooled Funded Studies		0.3	0.3			0.0
	11.2	10.8	22.0	11.9	9.4	21.3
Pavements						
Pavements R&D	8.8	2.4	11.2	13.2	2.0	13.2
Long Term Pavement Performance	8.3	6.0	14.3	10.0	6.0	16.0
Thin Bonded Overlay		2.5	2.5		2.5	2.5
SHRP Implementation*		7.0	7.0		7.0	7.0
Modified Asphalt Research		3.0	3.0			0.0
Technology Assessment and Deployment	2.0		2.0	2.0		2.0
Pooled Funded Studies		0.5	0.5		0.6	0.6
	19.1	21.4	40.5	25.2	18.1	41.3

*Strategic Highway Research Program

Question. If FY 1997 GOE funding for the structures program was maintained at the FY 1996 level, what are the highest priorities for the use of these monies? What would be your highest priority for an additional $2 million of funding above the FY 1996 level for structures R&D?

Answer. The FHWA's focus on research is changing from supporting the "traditional" areas of research such as hydraulics, geotechnology and corrosion protection to the new focus area of high performance structural materials (HPM) and nondestructive evaluation technology (NDE) in support of existing bridge management systems. Through outreach with partners, FHWA believes that it is wise to focus significant resources on a limited set of problems to accelerate solutions rather than supporting numerous areas of research where outcomes are more diluted. If fiscal year 1997 GOE funding is held to the fiscal year 1996 level approximately 25 percent of the budget will be used to conclude or otherwise close the "traditional" high priority areas of research while 75 percent will be devoted to the two new focus areas of research to develop HPM (advanced composites and high performance concrete and steel) for use in bridge repair, rehabilitation, and construction and to develop NDE technologies for bridge condition assessment.

The FHWA believes that the single most important area of research centers on identifying, developing, and providing design guidance for the use of advanced composite materials in bridge repair, rehabilitation, and construction. These materials, borrowed from aerospace and military use, when applied to civil construction can greatly reduce or eliminate maintenance, are easier to work with in the field to reduce construction/rehabilitation time, and can reduce life cycle costs over a structures life. An additional $2 million of funding would facilitate the advanced composites research focus area.

Question. If FY 1997 GOE funding for your pavement program was maintained at the FY 1996 level, what are the highest priorities for the use of these monies? What would be your highest priority for an additional $1 million of funding above the FY 1996 level for pavement R&D?

Answer. If funding is maintained at the FY 1996 level, the highest priorities will be the implementation activities for the Superpave system for the design of asphalt paving mixtures; the LTPP program; the field testing of performance-related specifications for asphalt and concrete pavements; and the continued development of more durable Portland cement concrete materials and pavements. If an additional $1 million over the FY 1996 budget level is approved, it would be used to support the development of improved pavement management practices/procedures and the evaluation/promotion of selected waste and by-product materials for use in pavements.

Question. Please break down in detail the $2,072,000 requested under other costs on page 93 and relate the expenditures to structures research.

Answer. The FHWA's R&T programs typically share proportionately in expenses associated with crosscutting efforts benefiting the overall R&T program, including support for the Transportation Research Board (TRB), and the Small Business Innovation Research (SBIR) program. The FHWA provided more detailed information on these expenses in R&T Technical Support justification included as a non-add line item in the 1997 budget request. As noted in the justification, these expenses are funded through the other costs shown in the Highway R&D and ITS budget justifications, such as the $2.1 million included in the structures R&D budget. Below are the items and associated expenses (in thousands of dollars) for FY 1996 and FY 1997:

	1996	1997 Estimate
TRB Correlation Services	2,694	2,800
SBIR Program	4,818	6,540
R&T Report Center	300	325
ADP Support Services	1,736	1,910
Editorial Support Services	552	580
Total	$9,900	$12,155

About half of the R&T Technical Support expenses are associated with FHWA's legislatively-mandated SBIR contribution. The Small Business Research and Development Act (PL 102-564) requires all Federal agencies with a Research and Development budget in excess of $100 million to participate in the SBIR program. The purpose of the program is to stimulate technological innovation and use small businesses to develop and commercialize technical innovations. The SBIR program is supported through a set aside based on research, development and technology funds spent on extramural research, for example, on research conducted by non-Federal entities. The legislatively-mandated SBIR set aside was 1.5 percent in FY 1994, 2.0 percent in FY 1995 and FY 1996, and will be 2.5 percent in FY 1997. The research portion of the State Planning

Research (SPR) funds expended by States constitutes extramural research using Federal research funds under the SBIR program. About 30 percent of FHWA's annual assessment for the SBIR program is associated with the SPR program; FHWA pays the SBIR assessment in full from the RD&T programmatic funds without drawing any support from the SPR program. While FHWA's contribution to the SBIR program are used to carry out highway research and technology development, the mandatory nature of the contribution makes it difficult to reduce these expenses.

The FHWA's support for TRB is the second major cost item included in the R&T Technical Support expenses. The TRB uses these funds to carry out a comprehensive program for advancing transportation RD&T among State and local governments, as well as the private sector. The TRB sponsors numerous committees on structures' design, construction and maintenance. The TRB sponsors conferences and workshops on pavement issues, typically with the help of committee members and TRB staff including the upcoming Fifth International Conference on the Application of Stress-Wave Theory to Piles, Fourth World Congress on Joints and Bearing Systems for Concrete Structures, and Transportation Construction in the 21st Century. The FHWA believes the activities carried out under R&T Technical Support are critical to the success and the effectiveness of the RD&T program.

Question. Please break down in detail the expected use of the $338,000 requested for other costs on page 119 and relate these expenditures to structures research.

Answer. The FHWA's R&T programs typically share proportionately in expenses associated with crosscutting efforts benefiting the overall R&T program, including support for the Transportation Research Board (TRB), and the Small Business Innovation Research (SBIR) program. The FHWA provided more detailed information on these expenses in R&T Technical Support justification included as a non-add line item in the 1997 budget request. As noted in the justification, these expenses are funded through the other costs shown in the Highway R&D and ITS budget justifications, such as the $2.1 million included in the structures R&D budget. Below are the items and associated expenses (in thousands of dollars) for FY 1996 and FY 1997:

	1996	1997 Estimate
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FHWA believes the activities carried out under R&T Technical Support are critical to the success and the effectiveness of the RD&T program.

MOTOR CARRIERS

Question. Please provide a detailed breakdown specifying how much is being spent during FY 1996 on major projects for each major research area. To the extent possible, please organize this allocation in a manner comparable to the FY 1997 request and also in a manner comparable to your FY 1996 budget justification.

Answer. The following chart describes the investment in the various motor carrier research categories in FY 1996:

Office of Motor Carriers Research Program

	FY 1996 APPROPRIATION
Human Factors	$2,008,000
Technology	$500,000
Information Analysis	$2,016,000
Regulatory Reform	$700,000
Services and Partnerships	$2,550,000

Question. Please outline in general terms the purposes of each of the major projects and estimate associated amounts that you are considering for each of the major research areas specified in your FY 1997 budget justification.

Answer. The information follows:

1997 Budget Justification

HUMAN FACTORS: **$2,600,000 (est.)**

New Initiatives

- *Driver Fatigue:* proposed new starts will look into the costs and benefits of alternative hours-of-service for the motor carrier industry. Related research will examine potential alternatives in the field.
- *Driver Training:* means to enhance the effectiveness of driver training will be identified and assessed.
- *Driver Wellness and Proficiency:* develop and implement strategies that impact how commercial vehicle drivers' psychological, social, and bio/physical factors affect motor carrier safety.

Ongoing Research

- *Driver Fatigue:* research will continue on the effect on fatigue of cargo loading/unloading, use of sleeper berths, and local/shorthaul operations.
- *Driver Fatigue:* field tests will be made by the Trucking Research Institute (TRI) for the Office of Motor Carriers (OMC) on the effectiveness of technological interventions identified in the baseline Driver Fatigue and Alertness Study.
- *Medical Research:* based on the survey of commercial motor vehicle (CMV) drivers, the OMC will conclude its assessment of the prevalence of obstructive sleep apnea among the commercial driving population.
- *Driver Rest and Recovery:* a major laboratory study of driver participation in a variety of work-sleep schedules will be nearing completion.
- *Fatigue Countermeasures:* dissemination of information on effective fatigue countermeasures will continue.
- *Simulator Validation:* completion during FY 1997 is anticipated on the research to validate high-tech simulators for training, testing and licensing of CMV applicants as a means to more cost-effectively prepare drivers for safe vehicle operations.

TECHNOLOGY:

$500,000 (est.; supplemented by ITS/CVO funds)

New Initiatives

- *Vehicle Identification.* In cooperation with the National Highway Transportation Safety Administration (NHTSA), the OMC will assess potentially effective means to mark and identify CMV parts and accessories.
- *Brake Components.* In cooperation with the NHTSA, the OMC will assess the feasibility of standards for "aftermarket" brake linings and other brake system components.

On-Going Research

- *Commercial Vehicle Information Systems Network (CVISN) model deployment:* model deployment in at least 3 States and 3 regions of CVISN and roadside electronic verification systems, with a prototype CVISN system ready to support roadside electronic verification and one-stop purchase of credentials.
- *Motor Carrier Safety Assistance Program (MCSAP) Sites:* equipping of an additional 100 MCSAP sites, bringing to 200 the number of sites equipped with pen-based systems and an inspection selection algorithm.

- *On-Board Safety Monitoring:* sensors and diagnostics developed and prototype testing completed for electronic brake monitoring systems for CMVs.

INFORMATION ANALYSIS: $2,200,000 (est.)

New Initiatives

- *Network of Employers for Traffic Safety.* This will involve OMC work with motor carriers to expand the currently small coalition to support and promote traffic safety in the workplace.
- *Troopers & Truckers Que's.* Using the lessons learned from very successful cooperative work between State troopers and selected CMV operators, the OMC will develop a program of workable enforcement tactics. It increases each driver's awareness of his or her responsibility for safety on the road, in part by putting enforcement officials and commercial drivers together in the same vehicle to learn and share from one another. It also establishes an information exchange to help officers identify unsafe actions by private automobiles that contribute to commercial vehicle crashes.

On-Going Research

- *Creating an Automated Strategic Information Analytical System (Channel 21).* This effort will support executive, analysts, and Federal and State field staff in the oversight of regulated motor carriers and in the promotion of commercial motor carrier safety on the highways. An integral component of Channel 21 is the use of numeric performance measures imbedded in the system which would detect and identify unfavorable trends or behavior patterns.
- *Crash Investigation Project.* The research will synthesize the crash contribution factors and causes from in-depth investigations/reconstructions conducted by States and Federal Government agencies. (The other part of the project is the course development by the Minnesota State Patrol. Since that effort is being funded with MCSAP monies, research funds are not needed.)
- *CMV's Under 26,000 Gross Vehicle Weight Rating.* Research pilots an analysis of the impact of implementing a performance standard for vehicles under this weight, as part of a mandated review of their regulation.
- *Periodic Updating of Motor Carrier Files.* Work will continue on the improvements to the system for updating these records.

- *Truck Crash Analysis Data System.* Complete testing and implementation of new crash and analysis system.

REGULATORY REFORM: **$700,000 (est.)**

New Initiatives

Phase III of the Zero-Base Regulatory Review will begin in FY 1997 and will include preparing rulemakings on definitions, driver and vehicle requirements, motor carrier operations and administrative procedures. The OMC will issue Notices of Proposed Rulemaking to which the public will be able to make comments to the docket on unnecessary regulations that need to be eliminated.

On-Going Research

Remaining actions on Phase II of the review will be undertaken.

SERVICES & PARTNERSHIPS: **$1,300,000 (est.)**

New Initiatives

None are currently proposed; most work in this category in FY 1997 will be devoted to continued support of Trucking Research Institute and National Private Truck Council (NPTC) research activities.

On-Going Research

- *Research Support by the TRI and NPTC.* Research will continue in cooperation with these two industry research organizations in support of numerous OMC studies.

Question. The release of the results of your Phase I fatigue study have been postponed once again. How many years late is this research? What are you doing to ensure that there will not be yet another postponement?

Answer. The FHWA's initial estimate for conducting the Driver Fatigue and Alertness Study, as it was originally designed, called for a period of performance of 48 months (September 1989 through September 1993).

The time and effort ultimately required to perform this research far exceeded the FHWA's and other participants' expectations, in part because no studies of this complexity and size had been undertaken since the 1970s. To address the question of the difference between projected and actual completion dates, the study design, methodology, and participating partners have all been expanded considerably since the research was initiated in 1989. The modifications were a result of the valuable comments provided during our early technical consultation meetings. The 1990 addition of physiological monitoring, which was directed by Congress, presented significant technical challenges which required over a year to resolve before any equipment could be purchased or test data were collected. We performed this study in an operational environment, collecting data from drivers assigned to revenue-generating runs. This added considerable complexity. Finally, it took additional time to revise the analysis methods as recommended by the 1995 Office of Motor Carrier's Peer Review on fatigue research. The sum total of the changes, while time consuming, added immeasurably to the long-term value of the study as an operationally realistic and objective assessment of patterns of change of driver alertness.

The recent delays in the completion of the study have been primarily due to the complexities of the required data analyses. This includes originally planned analyses and supplementary analyses identified during the review process. The initial draft report did contain some unexpected findings, but subsequent analysis has indicated that many of these were due to errors in interpretation or instrumentation artifacts, including signal noise.

We do not anticipate any additional substantial delays in completing the study. Analysis is complete and all significant findings will be published in the final report. We plan to announce the key findings of the study and to provide an executive summary by midsummer of 1996. The final report, which will probably be over 500 pages in length, should be available in late summer. The project management team,--FHWA, Transport Canada, and the Trucking Research Institute--has been working very closely with the contractors to facilitate the review of draft material and the preparation and editing of the project report.

Question. Please explain in greater detail your plans to create an "automated strategic information analytical system." (See page 130).

Answer. To support the objective of integrating analysis into motor carrier policy and program development and to address the need for more comprehensive data, the OMC is developing, with research funds, an Automated Strategic Information Analysis System. The system will support OMC managers and analysts, with potential future expansion to State and private sector partners. It will help users evaluate the safety status of individual commercial motor carriers and distinct groups of motor carriers (e.g., passengers carriers, for-hire trucking companies, carriers using vehicles from 10,001 to 26,000 pound gross vehicle weight rate, independent owner-operations), analyze trends, and assess the impact of motor carrier programs on safety.

An integral component of this system, to be supported by FHWA research and technology beginning in FY 1996, will involve the use of numerical performance measures which raise alert flags and identify unfavorable safety trends or motor carrier behavior problems. This is known as the *Channel 21* project. A critical part of Channel 21, in turn, is *Safestat*, a data-driven analysis system that will provide an objective, accurate, and efficient means of determining the safety status of motor carriers on a current and continuous basis. A prototype *Safestat* is currently being tested in the Commercial Vehicle Information System feasibility study. If proven successful, *Safestat* will be extended to support other OMC programs and activities. Additional research funding will be devoted to expanding and improving the effectiveness of *Safestat*, subject to the availability of funds.

Related to this research is an effort by the Volpe National Transportation Systems Center, which has completed preliminary work on a project to develop motor carrier safety performance measures. Volpe successfully designed and built a prototype automated strategic information analysis system for the FAA. The OMC is working with Volpe to obtain a similar, state-of-the-art system for the OMC within the next 5 years.

INTELLIGENT TRANSPORTATION SYSTEMS

Question. FHWA is seeking $4 million for the National Advanced Driving Simulator (NADS). What was the basis used to determine this amount?

Answer. The request for $4 million for the National Advanced Driving Simulator (NADS) will support the detailed design, fabrication, test, evaluation, and installation of the simulator at the University of Iowa. The ITS Joint Program Office regards the NADS as an important tool for the development and safety evaluation of critical ITS systems. In keeping with congressional direction in the FY 1996 Appropriations Law, that funding be provided for the NADS development by other DOT modes that expect to use the simulator, approximately one third of the required annual DOT funding for the facility development was requested in the FHWA budget for three years beginning FY 1996. This will not be a permanent budget request since the NADS will be completed by Spring 1999.

Question. You are asking for a substantial increase in the ITS funds that would be distributed to NHTSA. Why do you judge such an increase at this time of critical importance?

Answer. The NHTSA collision avoidance program has the potential for eliminating nearly 1/5th of all highway accidents and for saving billions in lost time, property and medical costs. The program has followed a very orderly and rigorous course of identifying where the greatest impact could be achieved, developing data collecting instruments, and drafting performance specifications for various crash avoidance measures. These early steps were accomplished for a modest cost. The program has now evolved to the critical "next step" of testing the crash avoidance measures in a series of field tests and operational tests. Each of these tests is modestly priced, particularly in comparison to expenditures required to field a travel management operational test, and the payoff in potential life savings is enormous. The ITS Joint Program Office has carefully considered this program increase relative to the whole program and believes that the safety benefits strongly warrant the increased expenditure.

Question. On page 201, the budget indicates that you are going to proceed with a new operational test for which you are requesting $4 million. Has this project started yet? Have you signed a cooperative agreement? Are you simply projecting that you will use $1 million during FY 1996? What are the implications of delaying this initiative by 1 year because of budget limitations?

Answer. The $4 million dollars would launch a rear end crash avoidance test. Partners have not been identified nor has an agreement been signed. Rear-end collision avoidance has been targeted as having the highest payoff for several reasons. These accidents account for 25% of all accidents and it is estimated that rear-end counter measures could prevent as many as half of these accidents. Further the technology of these counter measures is considered mature. A large fleet operational test if successful would encourage automobile manufactures to advance this technology to market. Delay of this launch by one year will mean not receiving results until after the turn of the century.

Question. Where in the ISTEA Act is there an explicit recognition that FHWA should spend considerable funds on training related to ITS deployment? Is this explicitly stated in the Act?

Answer. Title 23, Section 321 (created by the Federal-aid Highway Act of 1970: P.L. 91-605) established the National Highway Institute for the express purpose of enabling the Federal Highway Administration to develop and administer "training programs of instruction." Traffic operations and management training has always been a key area of FHWA training program through the NHI. This aspect of training was expanded to include ITS through Title VI of the ISTEA, which charges the U.S. Department of Transportation with the goal of carrying out "widespread implementation of Intelligent Vehicle-Highway Systems (a.k.a ITS) to enhance the capacity, efficiency, and safety of the Federal-Aid highway system." Title VI goes on to further charge FHWA with promotion and development of Intelligent Vehicle-Highway Systems (a.k.a. ITS). As a result of ISTEA, FHWA is charged with moving into a leadership role in ITS which implicitly requires education, training, and professional capacity building. Taken together, Title 23 USC Section 321 and Title VI of ISTEA give the FHWA explicit authority to invest resources in training and professional capacity building for ITS. The need for such an investment in training was recently identified from a survey conducted by the Institute of Transportation Engineers (ITE). The survey identified the lack of skills in ITS within the transportation profession and demonstrated the need for a considerable investment in training and professional capacity building to fulfill the mandates of the ISTEA.

Question. Please justify in detail the request for $500,000 for the category "other" under other R&D on page 178.

Answer. $500,000 is budgeted for use to support research and development opportunities identified throughout the year, either as part of ongoing projects, or to initiate important new projects. These permit examination of breakthroughs in technology, exploration of new ideas, or supplements to major on-going studies that can have significant return for a small increase in funding. In addition, these funds support Eisenhower research fellows, Inter-Governmental Personnel Agreement fellows, International research fellows, and in-house or staff-driven academic research studies.

Question. Please break down in detail the $1.95 million allocated during FY 1996 under "other," found on page 153.

Answer. The "other" $1.95 million is comprised of the following: (1) $240,000 for Electronic Identifiers and Cross Reference Files; (2) $250,000 for Intermodal Mobility Freight Plans and Intermodal Task Force; (3) $300,000 for a Mexican Driver License project; (4) $860,000 for On-Board Safety Diagnostics; (5) $50,000 for Weigh-in-Motion Use Maintenance Guidelines; and (6) $250,000 for an International Operations Concept/Design project.

Question. What are the possible safety benefits of the Advanced Fleet Management Systems research project? What will be the total cost of the project?

Answer. It is the Automatic Vehicle Location (AVL) technology in advanced fleet management that produces major safety benefits to the riding public and the bus operator. Fundamentally, AVL permits emergency services to respond to incidents on transit vehicles in half to 1/5th of the normal response time. There have been numerous incidents where transit properties have reported life saving incidents as a result of the effectiveness of AVL.

In Denver, a male passenger physically attacked two young female passengers at the rear of the bus. The driver activated his silent alarm. The dispatcher could hear the altercation on the bus and directed police to the scene as the bus proceeded on his route using the AVL. The police arrived in about one minute and arrested the assailant. The dispatcher commented that, "He saved a life that day." The Denver police view the AVL-equipped buses as "800 pairs of eyes" on the streets of Denver, since the dispatcher always knows the exact location of the bus. The drivers are used to assist in the location of missing children and at times to assist in locating criminals. AVL has been shown to be a major enhancement to public safety.

Question. What is a higher priority funding for Real-time Traffic Adaptive Control or the Map Database Standards? Please explain this answer.

Answer. These are two high priority areas from different parts of the program, research and standards; and two different customer bases: the travel management community and at least, initially, the navigation technology community. In the case of the travel management community, Real-time Traffic Adaptive Control (RT-TRAC) is necessary to provide more efficient travel in urban areas. In the case of the navigation technology community, ITS map databases have a stringent requirement for updates.

Keeping the database updated with local changes incurs a requirement that location standards be developed under the ITS location referencing work. This would allow various groups to maintain the numerous pieces of the ITS system in a single cohesive manner. This enabling technology is critical to support existing legacy databases in agencies, existing vehicle map databases and the continuing growth of the

ITS industry. Therefore, it would not be prudent to trade-off between two such dissimilar, but high priority project areas.

Question. Please explain what is meant by Intermodal Considerations on page 187 and why are these important.

Answer. "Intermodal considerations" concern all activities necessary to insure that the architecture addresses the requirements of all modes. For example, a new user service has been developed to support the requirement for Highway-Rail Intersection (grade crossing) safety. This budget item supports the addition of this grade crossing safety initiative to the National Architecture and allows for possible addition of other modal requirements that may arise.

Question. On page 185, FHWA listed formation of a "Deployment Assistance Team" and a "Model Deployment Support Program" under "Key FY 1997 Products and Milestones." Why can't FHWA field staff conduct many of these activities?

Answer. FHWA field staff at the regional offices is not intimately knowledgeable of the national ITS Architecture. Some of these staff have been present for the architecture team presentations that were part of the outreach activities, but are not aware of the systems engineering aspects of the final consensus architecture and the activities of the past year. In FY 1997, FHWA is planning to begin architecture training programs for persons in the regional offices. It will take time to transfer the detailed institutional knowledge gained by the two architecture development teams over the past 33 months to the FHWA field staff.

Question. Why isn't staff developing an ITS Deployment User's Guide which is listed under "Key Products and Milestones" for FY 1997?

Answer. The architecture defines the basic framework for ITS across the nation. *The ITS Deployment User's Guide* will start with the architecture generating deployment guidance targeted for specific audiences. Preparation of this material requires input from systems engineers experienced with the architecture. FHWA does not have sufficient staff trained in systems engineering or systems architecture to develop this deployment guidance without outside support.

Question. What could be done to reduce the costs associated with Program Management and Outreach of the AHS during FY 1997?

Answer. A consortium approach which involves stakeholders in definition of the future Automated Highway System (AHS) is essential to producing a system specification that is practical, deployable, and will stimulate the necessary public and private sector investment in deployment and product development. Otherwise AHS research will become an abstract, academic exercise of one contractor that may have theoretical value but little applications value.

It is true that R&D conducted through a consortium will incur higher program management costs than a more traditional contract research approach. This is due to the many organizations involved and the more complex business relationships. However, even by these standards, the additional costs required by the National AHS Consortium (NAHSC) are quite modest and are compensated for by the non-Federal cost sharing of the Consortium core participants and the contributed efforts of Associate Participants, which directly result from the Consortium approach.

For example, the program management component of the FY 1997 budget request is $3.6 million, which is just over 10% of the $30.7 million budget request. This includes salaries and travel of the program manager and the project managers for each of the ten Consortium core participants (managing the technical program within their respective organizations); the business staff of the program office; and the administrative staff. It should be noted that the site managers are strong technical contributors to the program activities in addition to performing their management role. FHWA maintains an ongoing focus on program management costs and has determined that the current level is appropriate. Further reductions could be gained only at the expense of program coordination and Consortium cohesiveness.

It is worth noting that substantial program management resources are expended in adjusting to funding shortfalls and the more difficult outyear planning in the face of budget uncertainties. A guaranteed annual funding level would reduce some of the costs.

The return on the investment in outreach is an assurance that the emerging technical products make sense with respect to the market and the society in which they would be deployed. Without such dialogue we could end up with a technically feasible "engineering" solution, but one which is undeployable. The stakeholder community -- which has now grown to nearly

100 firms, institutions, and public sector agencies -- has shown a strong and vigorous interest in the program activities.

Question. Please break down in detail the expected uses of the $13.5 Million requested under AHS Program Management and Outreach.

Answer. The figure provided for AHS Program Management and Outreach included program management, program office operations, outreach, and the proof-of-technical-feasibility demonstration. The demonstration was included in this component as an artifact of earlier thinking which viewed the demonstration as primarily an outreach activity. It has now been integrated thoroughly into the program as an element with substantial engineering content in addition to its outreach role in establishing technical feasibility to transportation stakeholders and the nation as a whole. Properly, then, the demonstration could be in a stand-alone budget subcategory rather than listed under "Program Management and Outreach."

The total for AHS Program Management and Outreach is predicated on receiving the full $30.7 million requested and is the sum of these components which are broken down as follows: (please note that the correct total is $13.2 million.)

Program Management	$3.6 million
Program Office Operations	$0.7 million
Outreach	$0.8 million
Proof-of-technical-feasibility demonstration	$8.1 million
Total	$13.2 million

Question. What is the amount reserved for traveling by the AHS Consortium? What are the rent costs for the Consortium office? What efforts did FHWA take to reduce these costs?

Answer. Travel costs for FY 1997 are allocated at $1.5 million. This is less than 5% of the $30.7 million budget request and is somewhat lower than business norms for similar multi-site engineering programs. Rent costs are $150,000, which is reasonable for the locality. Working with the NAHSC business manager, FHWA has maintained an ongoing focus on containing these costs.

The NAHSC program office maintains a strong and consistent focus towards reducing travel costs, such that average per trip costs are currently 26% below original estimates. Teleconferences are frequently held in lieu of travel. For cases in which face-to-face meetings are warranted, they have identified optimum sites to hold Consortium working meetings, given travel costs and numbers of personnel who must travel from their home offices for various types of meetings. They have also negotiated a reduced rate for Consortium personnel at hotels near frequent meeting sites. To minimize both management and travel costs, meetings of the NAHSC Program Manager's Council have frequently been reduced in duration and the interval between meetings extended. Further, the Consortium takes every opportunity to "bundle" meetings and hold side meetings at events such as the ITS America Annual Meeting.

Question. On page 99 of the budget justification, FHWA states that case studies on environmental review of ITS deployments were completed. Were these studies published? What were the major conclusions of these studies? Please list the titles of the publications and the NTIS numbers.

Answer. A draft status of nontechnical impediments document concludes institutional and legal issues will continue to arise in the deployment of ITS, but these issues can be overcome. Seven metropolitan areas were included in the study. The major environmental conclusion was the need for better tools to assess ITS products and services, including tools to evaluate the environmental impacts of ITS projects. Shortcomings in both data and simulation methodology limit the value of estimates of the emissions, air quality, and fuel consumption impacts due to the implementation of ITS.

Question. With regards to the request for R&D Crash Avoidance Research on page 155, which part of the program would be delayed if the amount appropriated was $4 million less than the amount requested? Please explain your answer in detail.

Answer. The effect of availability of an amount $4 million less than the amount requested would be to stretch out the efforts to develop performance specifications and facilitate commercial development of several of these collision avoidance countermeasures. This in turn would delay evaluation of these systems through operational tests, determination of their effectiveness, and could ultimately delay deployment of these systems in the real world. We strongly believe that the life saving potential of this work which has been presented in this year's work, as well as the rigor with which this work is being carried out, warrants the modest funding level that has been proposed.

Question. With regards to the request for Operational Tests of AVCSS on page 201, which part of the program would be delayed if the actual amount was $4 million less than the amount requested? Please explain your answer in detail.

Answer. The immediate effect of availability of an amount less than $4 million would be to extend the period of time needed to design and fabricate the systems that would be used in the test. This extension would then be reflected in the overall length of time needed to complete the project. The work to develop the collision avoidance system for this test and the results of the test will be major contributors to the level of understanding of system capability, useability, and safety benefits. If this test is delayed, it will delay the likely deployment of collision avoidance systems, thereby delaying accrual of potential safety benefits from large-scale deployment.

Question. Within the funds requested for the National Highway Institute, what specific training courses are planned to advance ITS? Are any new courses planned to help train State and MPO engineers on the integration of ITS?

Answer. A comprehensive professional capacity building initiative is aimed at training U.S. DOT headquarters and field staff and their State and local counterparts. Professional capacity building will be provided through the National Highway Institute (NHI), the National Transit Institute (NTI), Central Training, Colleges and Universities, professional societies (such as ITS America, the Institute of Transportation Engineers (ITE) and the American Association of State Highway and Transportation Officials (AASHTO)), commercial purveyors, and other proven and effective delivery mechanisms. The initiative will also support development and offering of "non-traditional" training opportunities such as scholarship programs, on-the-job training, rotational assignments, mentoring, and self-paced interactive CD-ROM training. The following is a comprehensive list of the education that includes the courses that will be offered through the National Highway Institute:

- A series of seven, half- to one-day modularized seminars, developed in FY 1996, on cross-cutting issues that must be addressed to facilitate deployment of the ITI core infrastructure and that ITS personnel can use to identify "what they need to know" will be presented in FY 1997 and beyond with assistance from the NHI. The seminars include:
    - o ITS Overview, Benefits, and Costs

- o ITS and the Transportation Planning Process
- o Public-Private Partnerships
- o Innovative Procurement
- o ITS and Telecommunication
- o Architecture and System Integration
- o Systems Engineering

- The FHWA Traffic Management & ITS Applications Core Curriculum Course will be further updated in FY 1997 to incorporate the latest state-of-the-art ITS technologies and institutional guidance.
- Existing NHI, courses will be upgraded to address ITS technical and institutional issues. There will be an emphasis on integrating these existing courses with other ITS Transportation and Traveler Information Services elements. Courses include:

13305--Highway Capacity and Quality of Flow
13310--Computerized Traffic Signal Systems
13328--Traffic Control Software and Signalization
13342--Human Factors: Principles for Highway, Traffic and Design Engineers
13345--Traffic Management strategies
13353--Improved Highway Travel Considerations for an Aging Society
13366--TRAF-FRESIM
13367--TRAF-CORFLO
13368--Traffic Models Overview
13369--Design and Application of Travel Demand Management Techniques including Telecommuting
13370--Design and Application of Travel Demand Management Techniques not including Telecommuting
13371--Design and Applications of Telecommuting Projects
13372--High Occupancy Vehicle Facilities
13373--Intelligent Transportation System (ITS) Planning and Functional Requirements
13374--Advanced Signal Controller
13375--Freeway Management and Traffic Operations

New NHI courses (2 to 4 days) will also be developed during FY 1997 that address important aspects of ITS. These course include:

- o Incident Management
- o Transit Management Systems
- o Regional Traveler Information Systems
- o ITS in the Transportation Planning Process

As indicated from the list, there will be a one-day seminar and a three (or four) day training course to address ITS and Transportation Planning. Both are targeted of the planner at the State, local, and Regional (MPO) levels.

Question. FHWA is requesting $10 million for a new operational test in real-time traffic adaptive control. Why can't this project be split funded over the next few years? Why is it of critical importance that $10 million be made available during FY 1997? What are the total costs of this initiative?

Answer. The $10 million requested is critical to maintaining the schedule for the field research, development and testing of the real-time traffic adaptive control concept, referred to as RT-TRACS. Currently, there are five different control strategies being developed under the RT-TRACS research and development initiative. Because of funding limitations, the RT-TRACS will only be subjected to a small field test of one of the prototypes to serve as the proof of concept. This test is currently planned for Spring 1997. It is important to note that the nature of this testing will be a research field test which differs from operational testing it focuses on quantifying the robustness of the technology by determining, through iterative experimentation, the range of applicability and identifying and correcting possible problems with the technology itself. The funding requested is needed to prepare field test sites for evaluation of the other prototype control strategies, in parallel, desirably at two to three sites.

The total costs of this initiative to develop RT-TRACs is difficult to asses in that it's real roots go back to early work in the late 70's under the SBIR program. Since then much work has been done in RT-TRAC and related areas as driven by user needs and participation. Roughly, to date, approximately $5 million has been contributed, about 60% of which is Federal and the remainder as part of public-private cost sharing ventures. With previous funding commitments, the request for $10 million for research field testing, and future year funding through FY 2000, we anticipate the total Federal costs of this initiative to be $26 million.

CVO/ITS ACTIVITES

Question. FHWA is requesting an increase for research on electronic credentials from $50,000 to $2,450,000 (see page 153). Please justify in detail the need for such a large increase and explain how these funds would be used.

Answer. In FY 1995, the FHWA requested $50,000 in FY 1996 for electronic credentials to extend the piloting phases of the Southwest and HELP, Inc, "electronic one-stop shopping" operational tests. FHWA has spent approximately $4.5 million from FY 1994 to date for all three operational tests. This extension would allow the two systems to be operational until December 31, 1996 to collect information during a peak registration and filing period.

In FY 1997, the FHWA is seeking $2,450,000 to continue progress in the area of electronic credentials, building on the operational tests' results. According to a soon to be released ATA Foundation study for the FHWA, electronic one-stop shopping could provide carriers a significant benefit/cost ratio. In addition, States all benefit by significantly reducing error rates on initial submissions for some credentials. The electronic purchasing and processing of credentials will allow states and carriers to do business more efficiently. In some cases, carriers will be able to receive temporary credentials 24 hours a day/seven days a week while the permanent credentials catch up to the truck during regular state business hours.

Specifically, these funds will pay for 1) software development to include intrastate carriers as well as interstate carriers; 2) software development for state to state electronic data interchange (EDI) and State offices to roadside inspectors EDI; 3) software development to encompass all credentials for carrier to state EDI; and 4) Purchasing and processing of credentials for safe and legal Mexican and Canadian carriers.

Question. Please break down in detail the intended uses for the $5.1 million requested under SAFER/MCSAP sites.

Answer. The detail for the intended uses of the $5.1 million follow:

1) SAFER CARRIER SYSTEM ENHANCEMENT & OPERATIONS	($1,500,000)

TARGET:Mid 1997: 200 MCSAP sites with Inspection Selection System (ISS) capability to prioritize inspections and ability to electronically update carrier safety data used in ISS.

SAFER/CARRIER SYSTEM OPERATION & MAINTENANCE Contract (APL/SAIC)	$550,000
MCMIS SYSTEM MODIFICATIONS To modify MCMIS to 1)fully update the the SAFER/CARRIER system and 2) incorporate a uniform safety fitness algorithm, such as the CVIS SAFESTAT or similar process. Contract (ANSTEC)	$200,000

MCMIS DATA OPERATIONS
To process the data updates required by SAFER and the 200 MCSAP sites (MCMIS).
Inter agency to working capital fund $500,000

CARRIER REGISTRY DEVELOPMENT
Develop a National Carrier Registry System, to include all interstate and intrastate carriers nationwide, to be updated automatically from MCMIS, SAFETYNET and other user systems such as CVIS. Will allow uniform, National identification of all motor carriers and a uniform numbering system to identify all vehicles for ITS/CVO clearance.
Contract (TBD) $250,000

2) SAFER/DRIVER-VEHICLE SYSTEM ($1,800,000)

TARGET: Mid 1998: 50 MCSAP sites with ability to make on-line retrievals of prior inspections by driver/vehicle specific identifiers.

SAFER/DRIVER-VEHICLE SYSTEM DEVELOPMENT
Development of the full production version of this system by the end of 1997 to allow access from the roadside both to transmit inspection results and retrieve prior inspection information on individual vehicles and drivers.
Contract (APL) $850,000

SAFER/DATA MAILBOX
Finalize production version of the mailbox to exchange

SAFER/CARRIER and SAFER/DRIVER-VEHICLE/CREDENTIAL data for all users.
Contract (APL) $200,000

SAFETYNET MODIFICATIONS
To modify SAFETYNET to interact with SAFER/CARRIER (for intrastate carrier data) and the SAFER/DRIVER-VEHICLE system (for inspection data) via the SAFER/NATIONAL DATA MAILBOX.
Contract (FARRADYNE) $225,000

ASPEN MODIFICATIONS
Modify the ASPEN and the Inspection Selection System (ISS) to 1) fully incorporate carrier data updates from SAFER/CARRIER and 2) interface with the SAFER/DRIVER-VEHICLE real-time inspection data system for verification.
Grant (Idaho) $275,000

ROADSIDE SYSTEMS USER SUPPORT
To provide assistance to states in the training, installation, trouble shooting (Hot Line) and software/data operations of the 200 site project.
Interagency to Volpe: $250,000

3) ROADSIDE CLEARANCE SYSTEMS ($1,800,000)

SITE COMMUNICATIONS & EQUIPMENT
To complete equipping of the 200 sites, including preparation of the 50 sites for access to driver and vehicle specific inspection data from SAFER/DRIVER-VEHICLE system. Will require adding equipment and wired or wireless data communications necessary to access SAFER/CARRIER for updates.
Grants to States: $1,500,000

ROADSIDE SAFETY CLEARANCE SYSTEM
To develop software to obtain data updates from SAFER/CARRIER
Contract (APL or other): $300,000

Question. Please break down in detail the uses intended for the $1.5 million requested under the Automated Compliance Review Program. How was this amount determined? Why is this entire amount needed at this time? Couldn't this project be split funded over several years?

Answer. The request of $1.5 million was based on an assessment of projected project costs for this system approximately two years ago. The program, now named Automated Safety Assessment Program (ASAP), will be implemented over several fiscal years, thus funding can be phased in over three years. During FY 1997, the ASAP pilot implementation and evaluation phase will require $600,000 A pilot system will be developed and a select group of motor carriers will participate with OMC in pilot evaluation. Funding for FY 1998, incorporates full systems implementation, $600,000 is estimated for funding requirements. During this phase the system will be fully developed with refinements as required by the pilot and evaluation phase, and the full operation and systems maintenance activities will begin. First year systems maintenance for FY 1999 is expected to be $300,000. However, if the program is fully funded in FY 1997, the FY 1998 and FY 1999 amounts will not be needed.

Examples of where the program would be beneficial include:

1) Complements the CVIS program by enhancing the data available for identification of unsafe carriers.

2) Monitors exempt carriers as required by NHS Section 344 and 345.

3) Assessment of carriers authorized for electronic clearance.

Question. What progress has already been made in the Automatic Compliance Review Program?

Answer. During FY 1995 and FY 1996 the OMC has completed several tasks including a description of preliminary data requirements, an assessment of legal and institutional issues, a preliminary system design, and a baseline detailed system design document. An initial working prototype of the Motor Carrier Data Collector (software used to collect data from motor carriers) is expected to be ready for OMC review and internal comments by September 1996. After continued refinements of the prototype, a pilot program to test and evaluate the system will be initiated with a select sample of motor carriers. Program planning also has been refined to better define the potential motor carrier user group and to insure that the system complements efforts undertaken in OMC's SafeStat initiative.

Question. Why can't companies simply electronically send their safety and compliance data to FHWA? Why is $1.5 million of research necessary? What is the total cost of this project expected to be?

Answer. An analysis of motor carrier industry statistics indicated that the majority of motor carriers are small companies with very limited automated record keeping capabilities. Most companies would be unable to file information electronically or would have to computerize information at a significant cost. Requesting companies to electronically submit data to the Office of Motor Carriers (OMC) without first standardizing the format or providing the necessary software program would result in varying electronic formats requiring significant industry and OMC resources to compile, reconcile, validate, analyze, and interpret the information. Since the primary purpose of the Automated Safety Assessment Program (ASAP) is to support the assessment of motor carrier safety, it is essential that the data collected be uniform and standardized. The ASAP system will enable the motor carrier industry and Federal government to assess motor carrier safety information in an automated cost effective manner. The ASAP program would allow the safety assessment of many motor carriers beyond those that can be accomplished by on-site Compliance Reviews. The ASAP system will provide participating carriers with an automated process to answer a series of questions about the carrier's safety performance and management practices.

Prior fiscal year expenditures total $600,000 for FY95 and FY96 activities. Combined with the FY97 and FY98 systems development activities of $1.2 million, total systems development funding is estimated at $1.8 million. Total project costs (as opposed to system development costs) are estimated at $2.1 million through FY 99.

Question. Why is $0.8 million needed for emissions verifications? Doesn't existing technology suffice for this purpose? Is their any overlap between this project request and research activity pursued by either EPA or the State of California?

Answer. Roadside electronic verification currently includes, checking safety, weight and credentials of commercial motor vehicles. Compliance with air quality and fuel regulations is becoming increasingly important in many areas. California is already proposing checking emissions at their southern border and at weight station in/near attainment areas. Unless there are roadside or on-board technologies that can check emissions while in motion the queue at facilities will increase dramatically. This project will help solve both a safety and productivity problem.

Research funds for checking truck emissions at highway speeds were requested in FY 1996. Due to budget constraints, this initial research did not take place. Therefore, in FY 1997, the FHWA is requesting $0.8 million for research and prototyping in this area with a follow-on operational test in FY 1998.

The FHWA is having discussions with the State of California and the U.S. Environmental Protection Agency about mainline emissions checking technologies. There do not appear to be any existing technologies for this purpose nor any overlap with other efforts in this field.

Question. Please break down in detail and explain the intended purpose for the $2.25 million requested under On-Board Safety Diagnostics of the CVO Program.

Answer. The $2.25 million requested for CVO On-board Safety Diagnostics in FY 1997 will be used as follows:

Driver Fitness for Duty	$600,000

These funds will be used to advance our studies of driver fitness for duty by entering into contract with the University of Pennsylvania to perform a two-phase study of measures of ocular activity for fatigue detection and alertness management. Phase I will be a controlled, laboratory based experiment involving sustained physiological and neurobehavioral monitoring throughout all circadian phases. Phase II will work with Carnegie Mellon Research Institute to study the implementation and feasibility of two ocular (eye blink) measures in a field scenario with instrumented trucks and drivers.

Electronic Braking System $150,000

These funds will be used to complete the Federal Highway Administration's (FHWA) portion of a cooperative agreement between FHWA, the National Highway Traffic Safety Administration (NHTSA) and private industry for the development of an electronic braking system for commercial motor vehicles. The total cost of the project is $3,750,000 of which $3,000,000 is being contributed by private industry.

Vehicle Incident Recorder (Black Box) $500,000

These funds will be used to complete a study of the feasibility of installing a vehicle incident recorder or a "black box" that will allow constant monitoring of critical vehicle functions. This will allow FHWA to complete research that will aid in understanding causes of commercial vehicle crashes and the development of appropriate and effective countermeasures.

Smart Card $500,000

These funds will be used to begin an operational test for the prototype smart cards developed under the feasibility study. Initial results strongly indicate a benefit for the use of smart cards by the motor carrier industry. We anticipate having four prototype smart cards at the completion of the feasibility study that will be ready for use in an operational test.

On-board Diagnostics $500,000

These funds will be used to begin integrated testing of on-board electronic brake, driver and other safety diagnostic systems on commercial vehicles to warn drivers of potential problems and advise of appropriate countermeasures.

Question. Please break down in detail and explain the intended purposes for the $5 million requested under State, Regional, and National Forums/Activities.

Answer. If CVISN is to be implemented on a nationwide basis a number of agencies in each State are going to have to agree to work together and possibly re-engineer their processes. Similar colaboration will have to take place across state lines. These agencies have no natural forum (like an MPO) to bring them together for co-ordination purposes. In essence we will be using a small amount of money in each state to bring the agencies together to develop business plans "networking" their databases using the CVISN architecture. The funds will also support seminars and workshops covering ITS/CVO lessons learned, best practices, and electronic data interchange standards from the CVISN pilot states, operational tests, and roadside safety initiatives.

Specifically, FY 1997 mainstreaming funds will provide $50,000 per participating state and will require a dollar for dollar cost share. Regional activities would be provided up to $275,000 per region for seven regions. National activities would be provided $475,000 and would be used to fund national efforts and activities with national organizations like the Commercial Vehicle Safety Alliance (CVSA), the National Private Truck Council (NPTC), and the American Trucking Associations (ATA). These forums will keep these organizations, that represent the end-users, involved in the shaping of deployment activities nationwide.

Question. Why is FHWA asking for $.25 million to develop a response strategy to HM accidents? Why can't this strategy be developed by FHWA personnel?

Answer. FHWA believes that development of a Nationwide Strategy for HM incidents is necessary to preclude an emergence of individual incident response strategies by local, State and regional authorities. We believe that developing a generic, nationwide incident response strategy will avoid the promulgation of duplicative, confusing, onerous requirements mandated by local, State and regional authorities. Having such a strategy in place should hopefully bring about uniform, non-duplicative requirements from these entities.

The complexity, level of expertise, and the need for immediate dedicated resources requires the FHWA to work with a support contractor.

Question. When will the Operation Respond project come to an end? What are the total expected FHWA costs for this project?

Answer. The operational test of Operation Respond will conclude at the end of 1997 but we do not envision Operation Respond coming to an end because it is an excellent example of a public/private partnership. As a result of the partnering effort between FHWA and its contractors in this project, Operation Respond Institute, a not-for-profit organization, has been created. After FY 1997, we intend for the private sector to provide the support needed to allow the Operation Respond Institute to maintain self sufficiency and sustain continued growth. We expect support from the public sector to be minimal and primarily directed toward specific objectives or initiatives of the Department.

FHWA's support for Operation Respond to date has amounted to $540,000. The total costs for FY 1997 are expected to be nearly the same as the cumulative amount to date.

Question. Please break down in detail the $21 million requested for CVISN and Roadside Electronic Verification.

Answer. The detail for the $21 million requested for CVISN and Roadside Electronic Verification is as follows:

1) CVISN Development/Operation/Maintenance $9 million

Continue CVISN development to increase capabilities, to meet the refined operational concepts and requirements. Support drafting and testing of standards, software development, and operations and maintenance of CVISN.

2) CVISN Pilot - Federal Share: $5.3 million

A total of nine states are involved in the CVISN pilot - two of them are prototype states of Maryland and Virginia. The other seven are pilot states that will be selected through an RFA process. The selection will be made for the seven in August of 1996. Both the prototype and pilots are being split funded between FY1996 and FY 1997. Pilots will be funded at $500,000 per state and the prototypes at $400,000 per state.

3) CVISN technical support to the pilot states $3.0 million

4) Support operation of IRP and IFTA clearinghouse for the CVISN pilots $1.7 million

5) Evaluation $2.0 million

Question. Why is it of critical importance that the investment in border crossings occur in FY 1997? Will the primary benefits be in the area of safety or for customs agents?

Answer. It is critically important that the investment in border crossings occur in FY 1997 largely because of international agreements that have been made to demonstrate the technology and the electronic integration of the various functions (Immigration, Customs, Justice and vehicle safety inspection) at larger volume sites under two way traffic conditions -- in 1997. To date we have launched four operational tests. Limited funds have constrained the southern border crossings to one-way tests. We have quickly learned that the technology application will be wasted without collaboration with the many other border agencies. We have engaged in a collaborative agreement with Treasury to sponsor a larger technology test that includes a demonstration of the NATAP system at larger volume sites in accordance with international agreements Treasury has made with Mexico and Canada. Treasury will be responsible for database integration.

Our goal in the proposed effort is to take what has been learned in the existing border crossing tests, use the core design that is being developed by Booz Allen Hamilton based on these existing efforts, and demonstrate the integration of both the safety inspection functions and the customs functions at high volume crossings in co-operation with Mexico and Canada. Streamlining one without the other will do nothing to solve the miles long back ups that now exist at the border crossings.

Question. In terms of advancing the National ITS program, which is more important--integrating the Intelligent Transportation Infrastructure (ITI) or advancing border crossing technology?

Answer. Both are equally important in the benefits thay provide for safety and mobility. The international border operational test projects are expected to be complete at the end of FY 1996 and will be ready for Model deployment in FY 1997. Under the ITI, most of the operational tests that form the basis of model deployment have been completed. Sites have been selected for Model deployment of the ITI and will be underway by the end of the year and therefore will have a greater need for continuity than the international borders program, which has not yet begun. On the other hand, border crossing technology is being coordinated with both the U.S. Departments of Treasury and Justice as well as Canada and Mexico. As such it is critical for the overall testing of joint systems to expand border operational tests in FY 1997 at two high volume locations in Texas. These areas have also been chosen as sites Treasury, Justice and by Mexican Customs and Immigration (in Canada.)

MOTOR CARRIER SAFETY GRANTS

Question. Given the progress States have made in systems development and training for participation in IFTA and IRP, why is your request of $3.45 million still necessary?

Answer. Considerable progress has indeed been made in systems development and training for IRP and IFTA over the past 5 years and, in fact, the Section 4008 mandate requiring all States to become members of IAP and IFTA by September 30, 1996, has been met. The $3.4 million is necessary to pay for first year operational costs associated with the 15 additional States and 5 Canadian provinces that joined IRP and IFTA in late 1995 and 1996. This additional influx of States places additional training and technical assistance costs on the IRP and IFTA repositories and on existing IRP and IFTA member jurisdictions to make program and computer systems changes necessary to accommodate the new member States.

Question. Why is an increase in the administrative takedown for MCSAP necessary at this time?

Answer. As provided in the ISTEA, the budget requests 1.25 percent of the $85 million for MCSAP to support State training and grant administration. The level of funding for this program has remained approximately the same since 1993. The participants in the first Truck and Bus Safety Summit found that the lack of uniform safety and enforcement procedures causes the perception of inequitable treatment of motor carriers from State to State and a poor attitude toward safety by the industry. The FHWA believes that providing classroom training on inspection and compliance procedures and techniques, as well as innovative training and quality initiatives such as distance based learning techniques, is a central strategy to address this concern.

These funds are used to support the development and delivery of training to the States to ensure quality and uniform enforcement and safety practices nationwide. In FY 1996, the FHWA has used more than 99 percent of the administrative takedown funds for developing and delivering training, newsletters, and uniformity initiatives for State employees. A small portion of the funds is used for optical scanning and computerization of national grant records and processes. In FY 1996, these funds are providing approximately 136 courses to 2,900 State staff through the Office of Motor Carriers' National Training Center. In FY 1997, with increased funding, we will meet the States' needs for more than 167 courses for 4,175 State employees. In FY 1997, the States have significant increases in needs for training to ensure uniform inspections, training in new inspection techniques involved with advanced technologies, training in motor coach inspection techniques, and training for data collection and communications technologies.

MOTOR CARRIER OPERATIONS

Question. Public Law 103-311. Section 113 requires that the Secretary issue regulations that should improve enforcement of hours of service requirements. Why have these regulations still not been issued?

Answer. The FHWA has had to evaluate many issues with respect to how to best implement this program. The FHWA is analyzing the information to determine the most effective approach to meet the required elements of the intent of the Act and will issue a rulemaking addressing these regulations later this summer.

Question. Why hasn't the Secretary of Transportation complied with Section 114 of Public Law 103-311 which requires the issuance of regulations that should improve the transfer of information regarding an employee's safety performance? When will a final regulation be issued in this area?

Answer. The statutory mandate requires minimum information to be obtained during the investigation of a driver's employment history. After carefully reviewing the motor carrier safety regulations, it was determined that additional parts were also impacted and would require revision. The FHWA spent considerable time and effort reviewing how to implement and enforce these new requirements with the least economic and paperwork burden upon the motor carrier industry. A Notice of Proposed Rulemaking was published in the March 14, 1996 Federal Register and the public comment period ended May 13, 1996. The FHWA is currently addressing the comments and expects to publish a Final Rule by the end of 1996.

Question. How much money did OMC spend on Outreach/Educational Initiatives in FY 1995 and FY 1996?

Answer. The OMC allocated $952,991 in FY 1995 and to date, $855,000 has been allocated in FY 1996 on Outreach/Educational Initiatives designed to educate the motoring public on how to share the road safely with commercial motor vehicles.

Question. Please list all of the regulatory requirements and reports dealing with CVO or commercial vehicle safety which are past due according to various legislative mandates.

Answer. The information follows:

PAST DUE RULEMAKINGS

Law	Rulemaking	Deadline	Status
HM Transportation Uniform Safety Act of 1990, Sections 8 and 15	Motor Carrier Safety Permits, Inspect Radioactive Materials	Final Rule by 11/16/91	Notice of Proposed Rulemaking (NPRM) published 6/17/93. Notice publicizing the Alliance Hazardous Materials (HM) Permit Report is under development for publication in the Federal Register.
Motor Carrier Act of 1991 (Intermodal Surface Transportation Efficiency Act), Section 4007(b)(2)	Minimum Training Requirements for Operators and Training Instructors of Multi-Trailer Combination Vehicles	NPRM by 12/18/93	NPRM currently under Departmental review.
Hazardous Materials (HM) Transportation Authorization Act of 1994, P.L. 103-311, Section 113	Supporting Documents for Records of Duty Status	Notice of Proposed Rulemaking by 8/25/95 Final Rule by 2/26/96	NPRM currently under Departmental review.
HM Authorization Act of 1994, Section 114	Safety Performance History of New Drivers	Final Rule by 2/26/96	NPRM published 3/14/96. Final Rule by end of 1996.
Interstate Commerce Commission Termination Act of 1995, Section 408	Advance Notice of Proposed Rulemaking (ANPRM) on Fatigue Related Issues	ANPRM by 3/01/96	ANPRM by 7/96
FY 1996 DOT Appropriations Act	ANPRM on Fatigue Related Issues	ANPRM by 3/01/96	ANPRM by 7/96

PAST DUE REPORTS TO CONGRESS			
Law	**Report**	**Deadline**	**Status**
FY 1996 DOT Appropriations Act	Covert Verification Enforcement Activities of Out-of-Service Commercial Motor Vehicles and Drivers	April 1, 1996	Currently under Departmental review
FY 1996 DOT Appropriations Act	Draft of 5-Year Research and Technology Plan for the Office of Motor Carriers	April 1, 1996	Currently under Departmental review

Question. How much money did FHWA spend on NAFTA-related activities during FY 1995 and FY 1996?

Answer. The FHWA spent approximately $1.1 million on NAFTA-related activities in FY 1995 and FY 1996.

Question. Why is FHWA seeking to increase the amount of funds that it now spends on training hazardous materials carriers in regulatory compliance? Isn't there already a Federal requirement that training must be provided to employees? Has FHWA detected an increase in non-compliance in the hazmat area?

Answer. The FHWA is requesting funds for continuing its hazardous materials incident prevention program, which will provide training, technical assistance, and manuals. The request is largely based upon the increased levels of non-compliance in the hazmat area, and supports OMC's Strategic Plan. The OMC is striving to create a crash-free and hazardous materials incident-free environment through implementation of its Strategic Plan. Experience shows us that significant efforts of educating and providing technical assistance to the regulated industry parlay into substantial results. One proven approach is the development of an effective hazardous materials incident countermeasure program. To date, the OMC and its contractor Triodyne, Inc., have developed the *Hazardous Materials Incident Prevention Manual, A Guide to Countermeasures*. This manual, which will soon be released to OMC Safety Specialists, is accompanied by a videotaped training guide, outlining proper use of the manual. Both the manual and the videotape will be distributed to OMC personnel for use during compliance reviews performed on hazardous materials carriers and shippers. Depending upon the availability of funding, we intend to provide the manual and videotape to our State counterparts and to the industry for their use.

The Hazardous Materials Regulations (HMR) require that training be provided to hazmat employees. We believe that it is our responsibility to develop educational and technical assistance materials that can be readily used by the industry as part of training sessions or seminars taught by industry. The OMC will continue to provide at least a basis of understanding of the HMR requirements to respective carriers and shippers. Because it is the goal of the OMC to reach a crash-free environment, levels of hazmat carrier and shipper non-compliance can be reduced through the training initiatives underway within the OMC. During fiscal year 1993 there were 507 enforcement actions taken on hazardous materials carriers. This number increased to 552 for fiscal year 1994, which represents an increase in non-compliance of 8.9 percent. Also of significance during these years are the percentage increases in both the dollar amounts of penalties assessed, which was 9.7 percent, and the amounts of final settlements, which increased to 13.9 percent.

Question. Isn't the training provided at TSI sufficient, especially when it is combined with other training provided by RSPA and current training provided by OMC?

Answer. The industry and our State counterparts, as well as our OMC staff, continue to request additional specialized hazardous materials training and updates to existing courses. Both the development and updating of these courses are constant, as are the spiraling costs associated with them. The OMC intends to augment, with additional funds, hazardous materials training with contract and technical support, travel related to the development and presentation of educational training forums, and printing associated with incident prevention manuals and videotapes, including distribution to the affected industry as well as State counterparts.

Question. On page 390, FHWA has requested $230,000 under "other services", please break down in detail the purposes for which this money is to be spent. How was this amount determined?

Answer. Of this amount, we have identified approximately $100,000 for relocation expenses for border inspection personnel so they can be strategically located at necessary border sites. Also, $55,000 will be used for contract support to determine the most effective and efficient medium to educate commercial drivers crossing the border of the responsibilities of operating vehicles in the United States. The remaining $75,000 will be used to develop, translate and distribute informational material to commercial drivers at border sites. These estimates are based on our recent outreach experiences and historical data on employee relocations.

Question. Please break down in detail the intended use for $325,000 requested on page 391 under support contracts. How was this amount determined?

Answer. The Federal Highway Administration approaches commercial vehicle safety not only from the regulatory and enforcement perspective, but also from an educational viewpoint. The better the carrier, driver, enforcement officer and the public are aware of initiatives concerning commercial vehicles, the safer our Nation's roadways will become. To support this direction, the budget developed for FY 1997 outreach is based on four initiatives: regulatory reform, hazardous materials countermeasures, research findings and dissemination of the follow-up initiatives from the 1995 Truck and Bus Summit.

We are currently developing a strategic plan on outreach. The outcome of this plan will be a prioritization of outreach areas as well as fine tuning the message that needs to be communicated. Beginning in FY 1997, FHWA will be ready to let support contracts for developing these messages. The requested funds will be used to contract with media experts to support development and dissemination of brochures, training manuals, and audiovisual tapes, as well as coordination of public hearings and focus groups to garner feedback on these initiatives. We anticipate an even distribution of the $325,000 among the various media efforts. Also included in this amount is contract funding to determine the effectiveness of our outreach efforts. The amount identified for contract support was developed based on past experiences with outreach efforts.

LIMITATION ON GENERAL OPERATING EXPENSES (LGOE)

Question. FHWA is proposing to reserve $20 million from the federal-aid highways obligation ceiling for States that utilize training funds in Enterprise Communities and Empowerment Zones. What evidence is there of a current or projected shortage of trained personnel in the highway construction industry?

Answer. Demographic trends, relating to highway construction, reflect an aging workforce which has the potential for inflationary impacts if not properly addressed in the near term. The Engineering News

Record magazine issue of February 2, 1996, (a publication of the Association of General Contractors (AGC)) stated that, with an industry craft worker turnover of up to 250,000 annually, there is a need to have 1 million students in its program at any given time to replenish its work force. The AGC states that the average construction worker at the journey-level is now in his mid-fifties. The growth of the construction industry is such that it will need three times more workers throughout the 1990's. The Construction Labor Research Council predicts the industry will need at least 210,000 new workers a year to accommodate new growth and to replace existing workers who have died, retired, or left the industry.

Demographic patterns of distribution by age reflect a shortfall in available workers from typical sources (young and white males). The need exists to expose potential workers to the industry in ways that are effective in generating sufficient interest for them to commit to career decisions. The nature of the highway industry in areas without unions is characterized by small core crews, supplemented by transient workers. When labor shortages occur, it is too late to take the types of measures espoused here, and the pressure to avoid liquidated damages assessments can push contractors to pay premium wages to obtain workers to assist in meeting construction deadlines. Unfortunately, these premium wages then become the new floor for negotiations. The economy cannot continue to bear the cumulative effects of critical hot-spots where wages have been ratchetted skyward by short-sightedness.

Question. What was the basis that FHWA used to determine that $20 million was the appropriate funding level for this employment/training initiative? How do you reconcile this request with the fact that since FY 1992 only 19 States have spent just a little more than $12 million of federal-aid highways funds for related purposes?

Answer. In 1976 Title 23 of the United States Code, Section 140(b), set aside money for "apprenticeship, skill improvement or other upgrading programs,..." The program was originally targeted at African-American men in the Southeast United States. It was funded at $10 million. Since then the number of clients served by the OJTSS programs has expanded exponentially. Through its On-the-Job Training/Support Services (OJTSS) programs, FHWA currently tries to support programs that will increase the number of women, minorities, and disadvantaged people in highway construction with the same $10 million budget set out in 1976.

While the funding to train and include people in a field that continues to grow and require skilled workers has remained the same for 20 years, funding for highways and highway improvement has grown nearly 150 percent from $8.2 billion to $20 billion. The $20 million was chosen as a very conservative estimate based on increases in FHWA's budget, success of current programs, and need for more such programs.

Since 1992, the demand has grown for programs that move people from entitlement programs to work and from education to employment. The increases have been factorial over the last four years. Since 1990 the amount of vehicle miles traveled per year by people in the U.S. has grown by 30 percent from 2 trillion to 2.6 trillion miles per year. Metropolitan areas continue to grow and edge cities are becoming an urban planning reality. These developments have lead to a demand for better roads and highways and at the same time opened an opportunity to move people off of entitlement programs and into work that improves our Nation's infrastructure.

The spending choice between the demand for better roads and the need for employment training has created a dilemma. Under ISTEA, States had available to them one half of one percent for OJTSS. However, this money came from within their obligation limitation and took away from funds available for surface transportation and Bridge programs. Ten States chose to provide an OJTSS program.

In these ten States, the problems related to training and industry needs were addressed. In other States with the same or similar needs--which were likewise recognized--lobbyists for contractors were successful in getting the money allocated for concrete, asphalt, and steel rather than for people. The training and employment needs still exist and are growing. The unemployed who might be interested in careers in highway construction have no advocates to press for their needs.

This is born out even in States which did not use the option. We received requests to support their OJT efforts with direct funding, and recommendations from State Transportation Agency staffers that the funds be allocated by FHWA rather than made an option.

We are proposing to deal with this dilemma head on. We are asking for enough money to establish some OJTSS programs in Empowerment Zones and Enterprise Communities. We want the money to be placed beyond the States obligation limitations so that they have no conflict in requesting an OJTSS program. The $20 million we are requesting is a small enough amount so as not to take away from Surface Transportation Program funds or Bridge funds, thus leaving enough money available to be obligated to States with overriding bridge or surface restoration needs, or money that can be used to further develop their OJTSS programs.

Question. What is the basis for the $2.5 million requested for Federal Lands Contamination Site-Clean-up? How many years do you expect it will take to complete this project? What are the expected total costs?

Answer. The Federal Highway Administration operates a highway materials testing laboratory on the Denver Federal Center for which chemicals are used to test asphalt materials. These chemicals, both new and used , were traditionally stored in two underground storage tanks. The tanks were installed in 1978. In 1988, quantity checks indicated that the tanks were leaking, and their use was discontinued immediately and were pumped dry. The tanks were removed in 1992. However, its is estimated that 100 to 300 gallons of hazardous materials leaked into the ground. In December 1994, the Colorado Department of Public Health and Environment issued a compliance order requiring the Federal Highway Administration to investigate and remedy in accordance with Colorado hazardous waste regulations. Evaluation of ground water has confirmed there is soil contamination near the laboratory and this contamination has migrated off the Denver Federal Center. After the levels are below the standards, the project is considered complete.

Study of the contamination is underway to evaluate remedial measures and this is expected to be completed by January 1997. The construction of the remedial system is scheduled to begin in February 1997 and be completed in 1997. This system is estimated to cost $2.5 million. A monitoring system will be subsequently installed to monitor the effectiveness of the cleanup up until the levels are below established cleanup standards. The monitoring may be required to continue 4 to 7 years.

The expected total costs are as follows:

Fiscal Year (FY)	Cost
Cost to Date	$1,800,000
Remainder FY 1996	$2,700,000
FY 1997	$2,500,000
FY 1998 to FY 2004	$2,000,000
Total Estimated Costs	$9,000,000

Question. Please complete the following table for LGOE.

Answer. The information is provided in the following chart.

LIMITATION ON GENERAL OPERATING EXPENSES

(Dollars in Millions)

	FY 1995	Appropriated Amount FY 1996	Reduced Amount Due to Required Admin Savings FY 1996	Request FY 1997
a. Bonuses and Performance Awards	2.0	2.1		2.7
b. Permanent Change of Station	9.4	7.5		7.5
c. Training for FHWA Employees	2.4	1.2		1.3
d. Travel for Training	2.3	1.5		1.5
c. Communications & Utilities	8.7	8.2		8.2
f. Printing	.1	.1		.3

Question. Please break down in detail and further justify the critical need for expenditures for equipment (p.57), supplies, and materials (p.57), working capital funds (p.47), and "other" (p.47).

Answer. As a result of our streamlining efforts to implement the NPR objectives, the FHWA has straightlined the funding request for the working capital fund, and supplies and materials from our FY 1996 enacted level.

The FHWA however, has requested increases within other services, and equipment for the Motor Carrier Safety which is within the Limitation on General Operating Expense account. These increases reflect additional resources for operating and accessing the Motor Carrier Management Information System (MCMIS) through the Transportation Computer Center mainframe as well as operating the SAFER system. The growth of ADP services for the MCMIS and the SAFER system are primarily due to:

* New MCMIS data operations to support the Intelligent Transportation Systems/Commercial Vehicle Operations elements of "SAFER" system and electronic clearance.

* Cost for the operation of the SAFER system not being offset by user fees.

* Increased coverage of intrastate hazardous material carriers, identification of high risk HM carriers and shippers and support of a growing HM shipper review program.

* The inclusion of intrastate carriers in the USDOT numbering system, necessary for international safety data exchange as well as for uniform identification in the US required by CVIS and ITS/CVO.

* Increased data analysis of SAFETYNET inspection and accident data to improve guidance of motor carrier safety policies, programs and research emphases.

* Increased international access to MCMIS and SAFER as Canadian and Mexican governments under NAFTA increasingly participate in the SAFETYNET program.

* MCMIS and SAFER operations serving the needs of Commercial Vehicle Information System (CVIS) States for carrier safety fitness information.

- * New Safety Fitness Rating Methodology (SFRM), as a result of an ongoing, multi year effort to revise the SFRM process.

- * A new carrier sanctioning process based on the CVIS registration system process.

- * New MCMIS capabilities to support the SAFER to provide on-line carrier safety data to Federal, State, international and industry users.

The rationale for our increases for equipment represent costs anticipated for FY 1997.

- * Replacement of laptop computers/printers used by Safety Specialists to conduct compliance reviews, accident countermeasures and enforcement cases.

- * Upgrade and replacement of office microcomputers and local area networks to operate new FHWA software systems.

- * Implementation of electronic filing and FOIA retrievals for OMC documents from field office locations.

FEDERAL-AID HIGHWAYS OBLIGATION CEILING

Question. The administration is proposing an obligation ceiling of $17,714,000,000. Is the bonus program contained in that obligation ceiling? How was the bonus obligation ceiling treated in the past?

Answer. The $17,714,000,000 obligation limitation includes an estimated obligation for bonus program. In the past, bonus obligation ceiling was treated as a separate limitation and as an addition to the regular Federal-Aid Highways limitation.

Question. The administration is estimating $1,310,000,000 of obligations in exempt programs. Please break out how you derived this figure. If the administration were not asking for specific language which limited the obligation of demonstration project funds, what would be the estimate obligations in the demo project area, and what would be the resulting total obligations in 1997 for exempt programs?

Answer. The total estimated obligations for exempt programs in FY 1997 was derived by the following breakdown by program:

Obligations of Exempt Programs

Program	FY 1997 Estimated Obligations
Emergency Relief	$100,000,000
Minimum Allocation	660,000,000
Demonstration Projects	555,000,000
Total	$1,315,000,000

If the administration were not asking for a specific limitation on the obligation of demonstration project funds, the estimated obligations for these exempt demonstration projects would be $1,070,835,000 in FY 1997. As a result, the total estimated obligations for exempt programs would be $1,830,835,000 in FY 1997.

Question. Please provide tables which distribute the fiscal year 1997 obligation limitation at the administration's $17.714 billion level; at last year's level of $17.55 billion; and at a level of $17.3 billion. The table should include distribution to all states that withheld for administration federal lands and allocation reserve.

Answer. The information is provided in the following charts.

FEDERAL HIGHWAY ADMINISTRATION

FEDERAL-AID HIGHWAYS PROGRAM
ESTIMATED FY 1997 OBLIGATION LIMITATION DISTRIBUTION
(Dollars In Thousands)

Proposed Level: $17,714,000

State/Territory	Distribution
Alabama	$271,500
Alaska	206,502
Arizona	196,566
Arkansas	176,062
California	1,404,647
Colorado	200,261
Connecticut	355,320
Delaware	77,842
District of Columbia	79,041
Florida	598,912
Georgia	405,354
Hawaii	122,291
Idaho	106,179
Illinois	663,548
Indiana	343,128
Iowa	198,873

Kansas	205,998
Kentucky	226,785
Louisiana	236,610
Maine	91,981
Maryland	266,811
Massachusetts	694,846
Michigan	469,214
Minnesota	254,856
Mississippi	185,491
Missouri	360,802
Montana	156,641
Nebraska	139,725
Nevada	105,058
New Hampshire	85,948
New Jersey	481,137
New Mexico	170,390
New York	1,049,707
North Carolina	399,605
North Dakota	102,535
Ohio	597,178
Oklahoma	228,846
Oregon	206,244
Pennsylvania	663,936
Rhode Island	86,848
South Carolina	211,588
South Dakota	111,894
Tennessee	326,013
Texas	992,464
Utah	126,263
Vermont	78,873
Virginia	343,005
Washington	326,665
West Virginia	159,542
Wisconsin	292,580
Wyoming	111,794
Puerto Rico	76,473
Undistributed	1,442,455
Bonus Limitation	241,173
TOTAL, Obligation Limitation	$17,714,000

Proposed Level: $17,550,000

State/Territory	Distribution
Alabama	$268,722
Alaska	204,389
Arizona	194,555
Arkansas	174,260
California	1,390,277
Colorado	198,212
Connecticut	351,685

Delaware	77,046
District of Columbia	78,232
Florida	592,785
Georgia	401,207
Hawaii	121,040
Idaho	105,093
Illinois	656,760
Indiana	339,617
Iowa	196,838
Kansas	203,891
Kentucky	224,465
Louisiana	234,189
Maine	91,040
Maryland	264,082
Massachusetts	687,737
Michigan	464,413
Minnesota	252,248
Mississippi	183,593
Missouri	357,111
Montana	155,038
Nebraska	138,296
Nevada	103,983
New Hampshire	85,069
New Jersey	476,215
New Mexico	168,647
New York	1,038,968
North Carolina	395,517
North Dakota	101,486
Ohio	591,068
Oklahoma	226,505
Oregon	204,134
Pennsylvania	657,144
Rhode Island	85,959
South Carolina	209,423
South Dakota	110,749
Tennessee	322,678
Texas	982,311
Utah	124,971
Vermont	78,066
Virginia	339,496
Washington	323,323
West Virginia	157,910
Wisconsin	289,587
Wyoming	110,651
Puerto Rico	75,691
Undistributed	1,442,455
Bonus Limitation	241,173
TOTAL, Obligation Limitation	$17,550,000

Proposed Level: $17,300,000

State/Territory	Distribution
Alabama	$264,488
Alaska	201,169
Arizona	191,489
Arkansas	171,515
California	1,368,371
Colorado	195,089
Connecticut	346,143
Delaware	75,831
District of Columbia	77,000
Florida	583,445
Georgia	394,885
Hawaii	119,133
Idaho	103,437
Illinois	646,412
Indiana	334,267
Iowa	193,737
Kansas	200,678
Kentucky	220,928
Louisiana	230,499
Maine	89,605
Maryland	259,920
Massachusetts	676,901
Michigan	457,096
Minnesota	248,274
Mississippi	180,700
Missouri	351,484
Montana	152,595
Nebraska	136,117
Nevada	102,345
New Hampshire	83,729
New Jersey	468,711
New Mexico	165,989
New York	1,022,597
North Carolina	389,285
North Dakota	99,887
Ohio	581,755
Oklahoma	222,936
Oregon	200,917
Pennsylvania	646,789
Rhode Island	84,605
South Carolina	206,124
South Dakota	109,004
Tennessee	317,593
Texas	966,833
Utah	123,002
Vermont	76,836
Virginia	334,147
Washington	318,229
West Virginia	155,422
Wisconsin	285,024
Wyoming	108,907
Puerto Rico	74,498
Undistributed	1,442,455
Bonus Limitation	241,173
TOTAL, Obligation Limitation	$17,300,000

Question. In separate tables, please display the distribution of the $1.31 billion of exempt obligations by state under the administration's proposal of $100,000,000 for emergency relief; $660,000,000 for minimum allocation; and $555,000,000 for demonstration projects. Include a second table that shows the distribution of exempt obligations without the administration's requested cap on the demonstration project program.

Answer. The following table shows the estimated distribution of exempt obligations by state with the requested cap on the demonstration project program.

(In thousands of dollars)

STATE	DEMO PROJECTS	MINIMUM ALLOCATION	1/ EMERGENCY RELIEF	TOTAL
Alabama	14,674	15,494		
American Samoa	213			
Arizona	1,132	36,034		
Arkansas	31,599	23,753		
California	34,253	103.455		
Colorado	269			
Connecticut	7,368			
D.C.	2,051			
Florida	16,661	92,173		
Georgia	10,299	81,469		
Hawaii	577			
Idaho	6,532			
Illinois	23,275			
Indiana	8,806	47,994		
Iowa	10,553			
Kansas	6,774			
Kentucky	2,004	18,855		
Louisiana	6,510			
Maine	17,361			
Maryland	8,917			
Massachusetts	547			
Michigan	11,512	39,395		
Minnesota	19,369			
Mississippi	3,046			
Missouri	13,369			
Montana	1,670			
Muti-State	93			
Nebraska	2,322			
Nevada	7,804			
New Hampshire	2,979			
New Jersey	18,827			
New Mexico	1,002			
New York	33,110			

North Carolina	13,566	44,881		
North Dakota	6,588			
Ohio	14,676			
Oklahoma	8,216	4,912		
Oregon	4,268			
Pennsylvania	81,814			
Rhode Island	5,327			
South Carolina	3,591	31,863		
South Dakota	1,737			
Tennessee	3,832	3,663		
Texas	22,516	39,036		
Utah	1,011			
Vermont	1,856			
Virgin Islands	1,865			
Virginia	12,944	48,841		
Washington	8,314			
West Virginia	28,932			
Wisconsin	6,634	28,182		
Wyoming	1,856			
Undistributed			100,000	
TOTAL........	$555,000	$660,000	$100,000	$1,315,000

1/ Emergency relief funds are available to states when an eligible disaster occurs and on estimated needs for previously approved disasters. As there is no way to predict occurrence of an eligible disaster on a state in fiscal year 1997, distribution of emergency relief funds by state can not be made at this time.

The following table shows the estimated distribution of exempt obligations by state without the requested cap on the demonstration project program.

(In thousands of dollars)

STATE	DEMO PROJECTS	MINIMUM ALLOCATION	1/ EMERGENCY RELIEF	TOTAL
Alabama	28,312	15,494		
American Samoa	412			
Arizona	2,184	36,034		
Arkansas	60,969	23,753		
California	66,090	103.455		
Colorado	519			
Connecticut	14,215			
D.C.	3,957			
Florida	32,147	92,173		
Georgia	19,870	81,469		
Hawaii	1,074			
Idaho	12,604			
Illinois	44,907			
Indiana	16,990	47,994		
Iowa	20,361			
Kansas	13,069			
Kentucky	3,867	18,855		
Louisiana	12,561			
Maine	33,497			
Maryland	17,205			
Massachusetts	1,056			
Michigan	22,211	39,395		
Minnesota	37,371			
Mississippi	5,878			
Missouri	25,794			
Montana	3,223			
Muti-State	179			
Nebraska	4,479			
Nevada	15,057			
New Hampshire	5,747			
New Jersey	36,326			
New Mexico	1,934			
New York	63,884			
North Carolina	26,175	44,881		
North Dakota	12,711			
Ohio	28,316			
Oklahoma	15,852	4,912		
Oregon	8,235			
Pennsylvania	157,855			
Rhode Island	10,278			
South Carolina	6,929	31,863		
South Dakota	3,351			
Tennessee	7,393	3,663		
Texas	43,443	39,036		
Utah	1,951			
Vermont	3,581			

Virgin Islands	3,599			
Virginia	24,975	48,841		
Washington	16,041			
West Virginia	55,822			
Wisconsin	12,801	28,182		
Wyoming	3,581			
Undistributed			100,000	
TOTAL.......	$1,070,835	$660,000	$100,000	$1,830,835

1/ Emergency relief funds are available to states when an eligible disaster occurs and on estimated needs for previously approved disasters. As there is no way to predict ocurrance of an eligible disaster on a state in fiscal year 1997, distribution of emergency relief funds by state an not be made at this time.

GENERAL PROVISIONS

Question. In the general provisions section of the administration's appropriations bill language, FHWA has requested $20,000,000 for section 140(b) of Title 23 U.S.C., "empowerment zones/enterprise communities." How is this $20 million figure derived? On what types of activities would this money be used? What states or communities does the administration see receiving these funds?

Answer. Our budget proposes to reserve $20 million from the Federal-aid Highway obligation ceiling for States that utilize existing skills training funds in Enterprise Communities and Empowerment Zones. In 1976 Title 23 of the United States Code, Section 140(b), set aside money for "apprenticeship, skill improvement or other upgrading programs,..." The program was originally targeted at African-American men in the Southeast United States. Since then the number of clients served by the program has expanded exponentially, and now includes persons of Hispanic origin, American Indians, and women. Over the past 20 years, funding for highways and highway improvements has grown to nearly $20 billion. The requested $20 million funding reserve level was derived based on the participation in the current program and the recognition of the magnitude of highway construction activities across the nation, the expanded scope of the targeted population which will be served by the program, and the identified needs within Enterprise Communities and Empowerment Zones.

The funds will be used for outreach, pre-employment, and highway construction skills training for disadvantaged youths to break cycles of dependency and, in many cases, learned helplessness, and to help revitalize communities in poverty-stricken inner cities and rural heartlands. It will be used to increase the number of women, minorities, and disadvantaged people in highway construction. These practical job skills in turn, will enable participants to make meaningful contributions to their communities and the National economy rather than face the possibility of having to rely on public assistance. The following are a few example of what has been accomplished in the area of job training efforts. In Atlanta an on-the-job training program has brought together several private transportation partners to recruit women for a pre-apprenticeship training program resulting in job placement and job retention. Another program in Baltimore gave unemployed, unskilled youth the opportunity to get skilled, on-the-job training and lifelong employment skills while improving the roads in their own community. A program in North Carolina again brought together several private transportation partners to put 180 to 200 currently unemployed people to work. The program has a pre-employment component that is driven by current highway construction demands. Combined with other strategically targeted Federal, State, and local assistance, these Federal-aid Highway skills training funds can be expected to magnify the benefits derived from much-needed investments in Enterprise Communities and Empowerment Zones.

Under current law, States can spend up to one-half percent of their Bridge and Surface Transportation program funds to develop, conduct, and administer highway construction training, including skills improvement programs. We would distribute the reserved obligation authority as an incentive for States with Enterprise Communities and Empowerment Zones to expand their support of these activities. These fund would be distributed based on a national call for projects with nominations by States or communities. We will be establishing criteria to determine the most qualified projects. Criteria would include such items as the ability to marry these funds with other State or local funds to meet program objectives in areas with a high concentration of minorities and/or women and substantial Federal-aid projects. We believe that this expansion of the underutilized skills training programs would particularly benefit the Nation's communities that exhibit the greatest need.

Question. How has the administration funded the section 140(b) "empowerment zones/enterprise communities" program since the enactment of ISTEA? Please describe these activities and funding sources for each fiscal year.

Answer. Previously, funding under 23 U.S.C., Section 140 (b) has not been directed exclusively toward the empowerment zones and enterprise communities. Since ISTEA was authorized in 1991, $2 million has been spent from FHWA GOE funds on supportive services for training programs. In addition to this $2 million, States have had the option to draw down funding for On-the-Job Training/Supportive Services (OJT/SS) initiatives from the surface transportation program and the bridge improvement programs; however, states have generally opted to utilize the funds for construction activity and not to support training programs. Only seven states have utilized the ½ of 1 percent draw down option in FY 1996 for a total of $924,432. Some of the activities that formula funds were used for are: (1) the North Carolina DOT On-the-Job training program--the goal was to bring 180 to 200 currently unemployed or underemployed persons into productive highway construction careers; (2) the Georgia's Pre-Apprenticeship Training for Women in Highway Construction effort which was focused on math for trades and specific skills training in carpentry, equipment operation, and cement finishing; (3) the Native American Highway Construction Outreach Program to identify and disseminate information on the best and most effective measures available to increase the employment of American Indians in the Federal-aid Highway Construction industry (the extraordinarily high unemployment rates on Reservations (50-80%) and their geographic remoteness and isolation were critical factors to be addressed); (4) the Arizona Department of Transportation Pre-Apprenticeship Training Program, which will provide training in highway construction crafts to economically disadvantaged persons and develop a comprehensive report to be used as a model nationwide; and (5) the Women's Transportation Pipeline Project to develop a pilot program linking women with training and access to transportation careers. Similar projects can be targeted to empowerment zones and enterprise communities which have been established in 40 States and the District of Columbia. The proposed efforts are expected to greatly enhance economic and employment opportunities for the communities involved.

Question. Similarly, the administration has requested $15,000,000 for section 1012(b) of ISTEA for "toll roads, bridges and/or tunnels." How is this $15 million figure derived? On what types of activities would this money be used? If available, please provide the names of the projects and communities that would receive these funds?

Answer. Based on costs associated with previous congestion pricing "pre-project" studies and implementation projects, we believe a set-aside of $15 million in obligation limitation for the congestion pricing pilot program would provide much needed support in FY 1997 to two projects currently in the development stage as well as provide continuing support to the growing number of cities interested in exploring the potential of pricing solutions to congestion problems. In Minnesota, the State's public-private partnership program has developed a proposal for Minneapolis. The project will use automatic vehicle identification (AVI) technology to implement variable, time-of-day tolls on the new lanes. Federal-aid funds supported with additional obligation limitation could be used for purchase and installation of AVI equipment, associated with construction items, and monitoring and evaluation of project performance. This project is part of the State's public-private partnership program and has State enabling legislation as well as the support of the local communities. In Texas, the State and Houston Metro have developed a project proposal to implement congestion pricing on a 13-mile stretch of Interstate 10 in Harris County. This project would implement an HOV-lane "Buy-In" strategy, whereby HOV-2 vehicles wold be allowed to purchase the right to use an underutilized HOV-3 lane. Federal-aid funds supported by the additional obligation limitation could be used for purchase and installation of AVI equipment, monitoring and evaluation. A public outreach program is currently underway, with completion scheduled for fall of 1996. The project appears to have a broad base of support at the local level. We believe that in both the cases of Minnesota and Texas, the availability of $15 million in obligation limitation for congestion pricing programs would provide great benefits to the innovative projects involved, and would show the Federal Government's commitment to supporting pricing initiatives undertaken by State and local governments. A number of other cities have expressed interest in Federal support to their efforts to examine the potential of congestion pricing solutions to local congestion and air quality problems.

Question. How has the administration funded the section 1012(b) of ISTEA "toll roads, bridges and/or tunnels" program since the enactment of ISTEA? Please describe these activities and funding sources for each fiscal year.

Answer. Under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), FHWA is authorized to approve up to five congestion pricing implementation projects, three of which can involve tolls on the Interstate. In addition, pre-project studies including public outreach, project design, and related activities can be funded with program grants. There are 10 active ISTEA Congestion Pricing Pilot Program projects underway.

Two of the ten are for implementation projects located in San Diego, California; and Lee County, Florida. Of the remaining projects, seven are for pre-project congestion pricing studies in the following metropolitan areas: Boulder, Colorado; Los Angeles, California; Houston, Texas; Minneapolis/St. Paul, Minnesota; Portland, Oregon; San Francisco, California; and West Chester County, New York. The final project is funded by the FHWA, Federal Transit Administration (FTA), and Caltrans for a monitoring and evaluation study of the State Route 91 (SR-91) Express Lanes in Orange County, California. This privately-owned and operated facility is the first congestion pricing project to be operational in the United States. The study will produce valuable data and operational information that will prove beneficial to the FHWA congestion pricing pilot projects.

The table below shows Section 1012(b) Congestion Pricing Pilot Program funds obligated through 1995. The Congress rescinded the unused balance of Pilot Program funds in FY 1995, and transferred authorizations for FY 1996 and FY 1997 to other purposes.

ISTEA CONGESTION PRICING PILOT PROGRAM FUNDS

GRANT RECIPIENT	PROJECT CO-SPONSORS	AMOUNT OBLIGATED/ TYPE
California Department of Transportation (Caltrans)	Caltrans and San Diego Association of Governments	$ 7,960,000 PROJECT
Caltrans	Caltrans and Metropolitan Transportation Commission	$ 1,500,386 STUDY

Florida Department of Transportation (FLDOT)	FLDOT and Lee County, Florida	$16,000,000 PROJECT
Caltrans	Caltrans and Southern California Association of Governments	$ 1,110,000 STUDY
Minnesota Department of Transportation (MnDOT)	MnDOT and Metropolitan Council	$ 650,000 STUDY
Colorado Department of Transportation (CDOT)	CDOT and city of Boulder	$ 542,000 STUDY
Oregon Department of Transportation (ODOT)	ODOT and Portland Metro	$ 1,032,000 STUDY
New York Department of Transportation (NYDOT)	NYDOT and New York Thruway Authority	$ 280,000 STUDY
Texas Department of Transportation (TXDOT)	TXDOT and Houston Metro	$ 300,000 STUDY
Caltrans	Caltrans, FHWA, FTA	$ 148,000 STUDY
Technical Support to Project Partners	N/A	$ 828,002
Other*	N/A	$ 263,091
TOTAL:	N/A	$30,613,479

*Includes program support and related research (e.g. parking cash-out, variable toll and equity studies).

Question. The administration is requesting a drawdown of $15,000,000 for the Symms Recreational Trails Act. How is the $15 million derived? How would the $15 million be distributed? Please display the by State distribution.

Answer. The $15 million is authorized as contract authority in the National Highway System Designation Act of 1995. The allocations are made according to a formula established in the National Recreational Trails Fund Act. The Department may use up to 3 percent for administrative expenses. The remainder is allocated to the States. Half is allocated equally among all States, and half is allocated according to each State's share of off-road recreational fuel use in the preceding year. The table below lists FY 1996 allocations. Since the fuel use changes on an annual basis, we do not know the exact FY 1997 allocations yet. Also, we are exploring methods to better account for off-road recreational fuel consumption by light-duty trucks used in States other than the State of registration, which may result in some significant changes.

National Recreational Trails Funding Program Allocations to States for FY 1996

STATE	FY 1996 Allocation	STATE	FY 1996 Allocation
Alabama	$297,725	Nebraska	180,563
Alaska	164,654	Nevada	187,227
Arizona	267,030	New Hampshire	171,666
Arkansas	273,994	New Jersey	316,830
California	1,025,181	New México	267,960
Colorado	251,551	New York	331,382
Connecticut	179,744	North Carolina	348,921
Delaware	157,350	North Dakota	163,996
Dist of Columbia	141,000	Ohio	389,129
Florida	576,572	Oklahoma	247,056
Georgia	398,341	Oregon	238,818
Hawaii	163,897	Pennsylvania	392,416
Idaho	214,814	Puerto Rico*	141,000
Illinois	377,530	Rhode Island	161,717
Indiana	263,229	South Carolina	265,110
Iowa	224,832	South Dakota	170,529
Kansas	259,796	Tennessee	276,869
Kentucky	253,624	Texas	690,826
Louisiana	343,094	Utah	213,048
Maine	202,217	Vermont	165,703
Maryland	229,341	Virginia	421,027
Massachusetts	226,673	Washington	291,267
Michigan	386,280	West Virginia	223,578
Minnesota	289,166	Wisconsin	289,067
Mississippi	258,469	Wyoming	184,230
Missouri	321,020	**TOTAL U.S.**	**$14,664,000**
Montana	186,941		

NOTE: The FY 1996 allocations above assumed that all States would be eligible to receive funds.

*Puerto Rico decided not to participate in the program for FY 1996. Its funds will be reallocated among the other States.

Question. Please describe by fiscal year, since the enactment of ISTEA, how funding has been provided and used under the Symms Recreational Trails Act.

Answer. The ISTEA authorized the National Recreational Trails Fund Act at $30 million annually, subject to annual appropriations. No funds were provided in FY 1992. The Congress appropriated $7.5 million in FY 1993, and no funds in FY 1994 or 1995. The National Highway System Designation Act of 1995 authorized $15 million annually in contract authority for FY 1996 and 1997.

The only obligations for projects so far were from the FY 1993 funds. The FY 1993 funds were allocated to all States, the District of Columbia, and Puerto Rico. The States selected projects for funding based on State criteria. Nationwide, the States received 1,400 requests for funds totaling $34 million, but were able to fund only about 480 projects. Examples of projects include:

- providing a trail between a housing area and a park in Richmond, VA
- providing an accessible trail to a lookout in the Willamette National Forest in Oregon
- providing an accessible trail and protecting a natural area near Lake Tahoe in Nevada
- developing a multiple-use trail system in Clovis, NM
- constructing a trail on an abandoned railroad line in Marlinton, WV
- rehabilitating a trail along an abandoned railroad line to provide pedestrian and bicycle access near downtown Pittsburgh, PA
- repairing a trail bridge in the Delaware Water Gap in New Jersey
- purchasing trail maintenance equipment for groups working in the Mark Twain National Forest in Missouri
- The FY 1996 allocations were completed recently, and States are at various stages in the project selection process. Some States expect to obligate funds soon, and others may not be able to obligate funds until the end of the fiscal year. The kinds of projects funded in FY 1996 will be as diverse as the FY 1993 projects.

HIGHWAY TRUST FUND

Question. Please update the table found on page 247 of last year's hearing record, Senate Hearing 104-76, part 1, which displays the status of the highway trust fund account.

Answer. The information is provided in the following chart.

TABLE-473 (Rev.)
ESTIMATED HIGHWAY ACCOUNT STATUS
FY 1996 APPROP. ACT. LIMITATION $17.550 BIL. PRESIDENT'S BUDGET FY 1997
FEB. REVENUE ESTIMATES. ADD'L 2 CENTS AS OF 10/01/95
w/ SEC. 1003(c) REDUCTION FY 1996 (DOLLARS IN MILLIONS)

FISCAL YEAR	AUTHORIZATION	OBLIGATIONS	INCOME	EXPENDITURE	TRUST FUND BALANCE	UNPAID AUTHORIZATION	BYRD AMENDMENT	INTEREST INCOME	TAX RECEIPTS
1986 & PRIOR	198,180	190,536	178,093	168,606	9,486	29,574	5,785		
1987	13,780	13,133	12,728	12,802	9,412	30,552	7,639	934	11,793
1988	14,085	13,397	13,645	14,038	9,019	30,599	7,007	809	12,836
1989	14,433	13,825	15,134	13,602	10,551	31,430	7,677	776	14,358
1990	15,245	14,450	13,453	14,375	9,629	32,300	9,204	981	12,472
1991	14,336	16,674	15,303	14,686	10,246	31,950	11,731	809	14,494
1992	17,859	18,294	16,572	15,518	11,300	34,291	9,286	908	15,664
1993	21,477	18,010	16,863	16,641	11,523	39,127	8,776	817	16,046
1994	22,500	21,186	15,414	19,011	7,926	42,616	8,547	754	14,660
1995	21,053	20,544	20,967	19,472	9,421	44,197	10,160	548	20,419
1996	18,090	20,271	22,270	20,384	11,307	41,903	15,254	648	21,622
1997	22,554	19,650	22,666	19,858	14,115	44,599	16,709	722	21,944
1998		13,622	23,184	18,599	18,700	26,001		932	22,252
1999			24,009	13,185	29,524	12,816		1,370	22,639
2000			2,121	5,156	26,489	7,660		1,591	530

CONGESTION PRICING PROGRAM

Question. The ISTEA authorization allows up to five congestion pricing agreements. Please update the Committee on the status of this effort. How much money has been allocated for congestion pricing agreement projects, and to whom has this money been allocated? Have any of the pilot projects started to operate?

Answer. Under the ISTEA Congestion Pricing Pilot Program, FHWA is authorized to approve up to 5 implementation projects, three of which can involve tolls on the Interstate. In addition, pre-project studies including public outreach, project design, and related activities can be supported with program funds. To date, FHWA has issued a total of ten congestion pricing pilot program grants totaling $31 million in Federal funding: two of the grants are for implementation projects; seven are for pre-project studies; and one is for a monitoring and evaluation study of State Route 91's Express Lanes, a privately-funded congestion pricing facility in Orange County, California.

The current implementation projects are in San, Diego, California; and in Lee County, Florida. The congestion pricing pilot project in San Diego, California is slated for initial implementation in late 1996. Co-sponsored by the California Department of Transportation and the San Diego Association of Governments, this project would allow solo drivers to purchase passage on eight miles of the underutilized, existing HOV lanes along Interstate 15 in North San Diego County. Qualified HOVs would continue to use the lanes free of charge. In its full-scale deployment, advanced technology including transponders and roadway readers will be used to electronically debit the entry fee from motorists' pre-established accounts. The revenues generated will be directed to new and enhanced transit services in the corridor and to operation and administration of the facility.

The second implementation project in Lee County, Florida is also currently underway. Co-sponsored by the Florida Department of Transportation and Lee County, this project includes an innovative finance element. This project calls for the implementation of variable tolling on three bridges in Lee County. Utilizing the pilot program's "revenue reserve fund" option announced in the September 25, 1995, edition of the *Federal Register*, this project can use monies to replace potential revenue loss that could result from implementing off-peak toll discounts in combination with the recent all-day toll increase. The availability of the reserve fund provides assurance to the toll authority that the revenue stream will not be jeopardized. The second phase of the project will deploy advanced technology to implement variable pricing on the bridges to reduce peak period traffic.

Of the remaining ISTEA congestion pricing pilot program grants, seven are for pre-project congestion pricing feasibility studies in Boulder, Colorado; Houston, Texas; Los Angeles, California; Minneapolis, Minnesota; Portland, Oregon; San Francisco, California; and Westchester County; New York. These efforts are intended to lay the groundwork for implementing congestion pricing in select congested, metropolitan regions. Three of the studies nearing completion in Minnesota, California, and Texas, have high potential for proceeding to project implementation; the remaining three on-going studies are slated for completion by 1997.

The final grant, funded in conjunction with FHWA, FTA and Caltrans, is for a monitoring and evaluation study of the State Route 91 Express Lanes project in Orange County, California. This is a privately-owned and operated facility that is the first operational congestion pricing project in the United States. Although not a Federal-aid project, the study of this facility can yield valuable data and operational experience in planning and implementing the FHWA congestion pricing pilot projects.

The following table provides a detailed account of the $31 million in ISTEA (section 1012(b)) Congestion Pricing Pilot Program funds that have been obligated through mid-fiscal year 1995. (Note: $50 million in unobligated funds for FY'95, and $50 million in new funds authorized for FY'96 and FY'97 were rescinded).

ISTEA CONGESTION PRICING PILOT PROGRAM FUNDS

GRANT RECIPIENT	PROJECT CO-SPONSORS	AMOUNT OBLIGATED/ TYPE
California Department of Transportation (Caltrans)	Caltrans and San Diego Association of Gov'ts.	$7,960,000 PROJECT
Caltrans	Caltrans and Metropolitan Transportation Commission	$1,500,386 STUDY

Florida Department of Transportation (FLDOT)	FLDOT and Lee County, Florida	$16,000,000 PROJECT
Caltrans	Caltrans and Southern California Assoc. of Gov'ts.	$ 1,110,000 STUDY
Minnesota Department of Transportation (MINNDOT)	MINNDOT and Metropolitan Council	$ 650,000 STUDY
Colorado Department of Transportation (CDOT)	CDOT and City of Boulder	$ 542,000 STUDY
Oregon Department of Transportation (ODOT)	ODOT and Portland Metro	$1,032,000 STUDY
New York Department of Transportation (NYDOT)	NYDOT and New York Thruway Authority	$ 280,000 STUDY
Texas Department of Transportation (TXDOT)	TXDOT and Houston Metro	$ 300,000 STUDY
Caltrans	Caltrans, FHWA, FTA	$ 148,000 STUDY
Technical Support to Project Partners	N/A	$ 828,002
Other*	N/A	$ 263,091
TOTAL:	N/A	**$30,613,479**

* Includes program support, related research (e.g. parking cash-out, variable toll study, equity study).

ITS EARMARKS

Question. Please update the tables found on pages 286-289 of Senate hearing record 104-76, Part I which displays ITS earmarks and the amounts obligated.

Answer. The following tables give earmarks and unobligated balances for ITS projects for Fiscal Years 1992, 1993, 1994, 1995, and 1996.

Fiscal Year 1992 Earmarks General Operating Expense (GOE) Funds	Amount Earmarked (Millions)	Amount Unobligated as of 6/5/96
Advantage I-75	$ 1.0	$ 0.00
ATMS, Oakland Co.	10.0	0.00
Chicago (ADVANCE)	7.5	0.00
Crescent	2.0	0.00
Detroit	0.5	0.00
Miami	5.0	0.00
GuideStar, MN	10.0	0.00
Houston	2.0	0.00
Philadelphia	2.0	0.00
Electric Vehicle, CA	1.5	0.00
SmartCorridor, CA	1.0	0.00
TRANSCOM, NY/NJ	3.0	0.00
MAGIC, NY/NJ	4.0	0.00
Toll Road, ETTM, NJ	25.0	0.00
Int. Corr. Mgmt., NJ/Phil.	6.0	0.00
Signal Computerization, NJ	6.0	0.00
Southern State Parkway, NY	20.0*	0.00
Spellman Parkway, MD	0.3	0.00
Maryland Arterials	2.2	0.00
TOTALS	**$109.0**	**$ 0.00**

* $13.95 was rescissed in from this project in FY 95.

Fiscal Year 1993 Earmarks ISTEA and (GOE) Funds	Amount Earmarked (Millions)	Amount Unobligated as of 6/5/96
NE Corridor (MD to CT)	$ 10.500	$ 0.000
Gary Corridor, IN	1.400	0.750
Houston Corridor	3.105	0.000
Anaheim Corridor	4.200	0.000
Smart Corridor	4.900	0.000
Chicago Corridor	.500	0.420
Milwaukee Corridor	.500	0.420
San Diego, CA	2.100	0.000
Chicago (ADVANCE)	4.550	0.000
Miami-Ft. Lauderdale	2.240	0.000
Seattle, WA	3.500	0.000
Detroit, MI	0.700	0.000
GuideStar, MN	8.750	0.000
Orlando (TravTek)	0.500	0.000
Help/Cresent	0.525	0.000
Advantage I-75	1.400	0.000
I-80 CVO	0.700	0.000
Oakland County (FAST-TRAC)	10.500	0.000
Sutter County, CA	1.750	0.000
Fairfax County, VA	5.250	0.000
NJ (Police Comm. Center)	3.500	0.000
Signal Computerization, NJ	7.000	0.000
Toll Road, ETTM, NJ	7.000	0.000
MAGIC, NY/NJ	6.280	0.000
TRANSCOM, NY/NJ	2.400	0.000
Southern State Parkway, NY	14.000	14.000
New York State Thruway	5.250	0.000

ISTEA Total	**113.000**	**15.590**
George Mason University	1.600	0.000
Humphrey Institute	.760	0.000
GOE Total	**2.360**	**0.000**
Grand Total	**$115.360**	**$15.590**

Fiscal Year 1994 Earmarks ISTEA and (GOE) Funds	Amount Earmarked (Millions)	Amount Unobligated as of 4/18/95
Albuquerque, NM (Sandia Labs)	$ 2.0	$ 0.0
Bronx/N. Manhattan ATMS	2.4	0.0
Buffalo/Niagara Falls ATMS	2.0	0.0
Charlotte, NC (CARAT)	6.0	0.0
Chicago, IL (ADVANCE)	6.0	0.0
Gary-Chicago-Milwaukee Corridor	2.5	0.0
George Mason Univ., VA	2.0	0.0
Houston, TX Corridor	2.0	0.0
Johnson City, TN	2.5	0.0
Minnesota (GuideStar)	6.0	0.0
Montgomery County, MD ATMS	1.0	0.0
NYS Thruway (elec. tolls)	6.4	0.0
NE Corridor (MD to CT)	1.0	0.0
Oakland Co., MI (Fast-Trac)	20.0	0.0
San Diego, CA	5.0	0.0
Seattle, WA (Smohomish)	1.5	0.0
Southeast Michigan (SMART)	4.5	0.0
SR 9, NJ (Smart Bus)	1.5	0.0
Toll Road ETTM, Atl. City, NJ	3.0	0.0

TRANSCOM, NY/NJ	2.2	0.0
ISTEA Total	**79.5**	**0.0**
IOWA CVO	2.0	0.0
Humphrey Institute	.95	0.0
GOE Total	**2.95**	**0.0**
Grand Total	**82.45**	**0.0**

Fiscal Year 1995 Earmarks ISTEA Funds	Amount Earmarked (Millions)	Amount Unobligated as of 6/5/96
Minnesota (GuideStar)	$ 6.825	$ 0.0
Oakland County, MI (Fast-Trac)	15.000	0.0
Charlotte, NC (CARAT)	4.500	0.0
Houston, Texas	2.250	0.0
Lower Hudson Valley, NY	1.500	0.0
I-95 Corridor	7.500	0.0
Bronx-Northern Manhattan	2.250	0.0
University of North Dakota	0.750	0.0
Hazardous material trans. safety	1.500	0.0
Detroit, Michigan (SMART)	7.500	0.0
Santa Teresa, NM crossing	1.680	0.0
Johnson City, Tennessee	3.750	3.750
TRANSCOM, NY/NJ	2.625	0.0
Syracuse, NY congestion management	1.500	0.0
Brooklyn/Bronx/Queens signalization	3.750	0.0
National Trans. Center, Oakland, NY	1.870	0.0

Advanced railroad/highway crossings	2.625	0.0
New Jersey Turnpike	2.625	0.0
Green light CVO project, OR	6.000	0.0
ISTEA Total	**$76.000**	**$3.750**

Fiscal Year 1996 Earmarks ISTEA Funds	Amount Earmarked (Millions)	Amount Unobligated as of 6/5/96
I-10 Mobile, Alabama	$ 3.000	$ 3.000
Hazardous materials fleet management and monitoring system (NIER)	2.500	2.500
Green light CVO project, Oregon	7.000	7.000
Capital beltway	4.000	4.000
Houston, Texas	2.200	2.200
Syracuse, New York congestion management	1.500	0.000
I-95 Corridor	3.500	3.500
Johnson City, Tennessee	1.500	1.500
Texas Transportation Institute	0.600	0.600
University of North Dakota	1.000	1.000
I-675/SR844/Col. Glenn, Fairborn, Ohio	1.000	1.000
Paralympiad	1.000	0.000
Santa Teresa border crossing, New Mexico	0.900	0.900
Western Transportation Institute, Montana	1.000	1.000
TRANSCOM, New York/ New Jersey	1.500	1.500
New York State Thruway	1.500	1.500

National Transportation Center, Oakdale, New York	2.000	2.000
Advanced railroad/highway crossings	1.250	1.250
Minnesota GuideStar	2.000	2.000
Salt Lake City	2.000	2.000
ISTEA Total	**$40.950**	**$38.450**

ITS EARLY DEPLOYMENT

Question. Last year, FHWA provided the Committee a listing of approximately 77 communities that have received early deployment study funding under the ITS program. What have been the results of the funding that has been provided under this early deployment program? Specifically, which of the 77 communities have actually gone forward with a proposal for an ITS project. Please describe the status of each, and whether any funding will be provided under the administration's proposal to any of the listed communities.

Answer. Out of the 77 Early Deployment Planning (EDP) studies initiated since the start of this program in 1992, 18 have been completed. We are beginning to see a significant number of ITS projects moving through the regular transportation planning process toward implementation.

Based on the information collected in the ITI Deployment Database for the 75 largest metropolitan areas in the United States, ITI components are deployed nationwide as shown in the following table. It should be noted that multiple jurisdictions make up many of the metropolitan areas across the country and data in this table does not necessarily reflect area wide ITI component coverage.

Freeway Management Centers	41
Advanced Public Transit Systems	39
Centralized Traffic Signal Control Systems	57
Incident Management Programs	39
Electronic Toll Collection Systems	28
Electronic Fare Collection Systems	18
Emergency Management Systems	*

Railroad Grade Crossing Warning Systems	*
Regional Multi-modal Traveler Information Systems	**

* Information on these systems has not yet been added to the ITI Deployment Database

** While a number of metropolitan areas have regional traveler information systems through the private sector (such as Smartroutes in Boston and Cincinnati, Shadow Traffic and Metro Traffic, etc.), the Smart Traveler program in Anaheim and Orange County, California is the only existing system that comes closest to meeting the definition of a regional multi-modal traveler information system. In addition, the Atlanta Showcase, ATIS Kiosk, and Regional ATMS projects will provide the best example of a totally integrated traveler information system when it becomes operational later this summer.

A number of noteworthy examples of projects currently being advanced include:

- In the St. Louis metropolitan area, including adjacent counties in Illinois, a new traffic management center, emergency traffic patrols, motorist call boxes, and a highway advisory radio system are being advanced.

- Dallas, Texas is implementing a comprehensive freeway management system including system surveillance and incident detection; motorist assistance patrols and enhanced incident management practices; real-time traveler information systems through connections to the Internet and existing private sector radio and television traffic services, and changeable message signs along the freeways; and an advance vehicle location system for the DART buses fleet.

- In Denver, a freeway management system for I-70 and I-25 is currently being installed and a traffic management and traveler information system for the City of Denver has just completed installation of a state-of-the-art advanced public transit system with vehicle location capability.

- An enhanced incident management system is being implemented in Birmingham, Alabama as an outgrowth of the EDP study recently complete there. In addition, a freeway surveillance and control system is being advanced through the design process.

- A freeway surveillance and traveler information system is advancing toward a late 1996 construction start in Pittsburgh, PA. Included in this construction project will be an advanced high occupancy vehicle (HOV) lane surveillance and control system developed to address HOV operation problems that came to light following a fatal accident in 1995 and a number of reported near misses from wrong way travel on the reversible HOV system there.

- The Early Deployment Planning Study completed for the Charlotte, NC area is credited with coordinating and expanding the traffic management and traveler information activities begun under the CARAT (Congestion Avoidance and Reduction for Autos and Trucks) Program.

While the delivery of "projects" is important because it is a visible sign that the program is working, there are a number of less tangible benefits that are derived from the EDP studies. One of the more important benefits has been an enhanced spirit of cooperation among the EDP participants. These studies have brought together all the transportation players of a metropolitan area into a unified, systematic approach to congestion reduction and transportation problem solving. This has resulted in the breaking down of some of the jurisdictional barriers that have limited the planning process in the past.

In addition, the EDP process has been a valuable learning experience for all involved. Planners, transit officials, highway engineers, and local government officials have gained a greater appreciation for the benefits that ITS can provide. This has meant that ITS projects have won a "place at the table" when critical decisions on alternative solutions and funding allocations are made.

Under the Administration's FY 1998 Transportation Budget, funding for deployment of ITS components and systems is through the regular Federal-aid Highway Program and the Transit Formula Grant Program. Within each of these programs, project implementation decisions are made by the individual State and local transportation agencies. Therefore, we cannot predict at this time the level of ITS project activity in the areas that have completed EDP studies.

BRIDGE PROGRAM

Question. Please update the account of deficient bridges by State on the National Highway System, similar to that found on pages 472 and 473 of last year's hearing record. Include those bridges on the National Highway System, and those on non-federal aid highways.

Answer. The information is provided in the following charts.

COUNT OF DEFICIENT BRIDGES BY STATE
NATIONAL HIGHWAY SYSTEM (NHS)
AS OF DECEMBER 1995

	BRIDGES IN INVENTORY	NONDEFICIENT BRIDGES	STRUCTURALLY DEFICIENT	FUNCTIONALLY OBSOLETE	DEFICIENT BRIDGES
ALABAMA	2,785	1,996	114	675	789
ALASKA	208	153	26	29	55
ARIZONA	2,962	2,665	30	256	286
ARKANSAS	2,183	1,725	96	362	458
CALIFORNIA	9,552	6,943	243	2,366	2,609
COLORADO	2,181	1,684	118	379	497
CONNECTICUT	1,747	1,309	120	318	438
DELAWARE	286	214	23	49	72
DIST. OF COL.	167	69	32	66	98
FLORIDA	4,849	3,940	49	860	909
GEORGIA	2,843	2,289	68	486	554
HAWAII	441	218	23	200	223
IDAHO	821	621	33	167	200
ILLINOIS	4,263	3,158	439	666	1,105
INDIANA	3,233	2,702	106	425	531
IOWA	2,126	1,737	80	309	389
KANSAS	2,929	2,211	147	571	718
KENTUCKY	1,924	1,556	31	337	368
LOUISIANA	2,631	1,882	165	584	749
MAINE	490	356	41	93	134
MARYLAND	1,694	1,296	84	314	398
MASSACHUSETTS	2,260	921	200	1,139	1,339
MICHIGAN	2,662	1,801	436	425	861
MINNESOTA	1,837	1,598	135	104	239
MISSISSIPPI	2,302	1,541	98	663	761
MISSOURI	2,659	1,985	228	446	674
MONTANA	1,308	978	25	305	330

NEBRASKA	1,411	1,213	121	77	198
NEVADA	639	483	7	149	156
NEW HAMPSHIRE	659	507	53	99	152
NEW JERSEY	2,646	1,701	385	560	945
NEW MEXICO	1,650	1,417	74	159	233
NEW YORK	4,679	1,829	2,169	681	2,850
NORTH CAROLINA	2,712	1,905	313	494	807
NORTH DAKOTA	609	556	19	34	53
OHIO	4,990	3,702	415	873	1,288
OKLAHOMA	3,067	2,513	196	358	554
OREGON	1,875	1,280	51	544	595
PENNSYLVANIA	5,330	3,538	842	950	1,792
RHODE ISLAND	367	211	66	90	156
SOUTH CAROLINA	1,405	1,105	32	268	300
SOUTH DAKOTA	916	751	74	91	165
TENNESSEE	3,641	2,729	182	730	912
TEXAS	14,695	12,160	462	2,073	2,535
UTAH	1,041	691	108	242	350
VERMONT	484	335	23	126	149
VIRGINIA	3,077	2,467	162	448	610
WASHINGTON	2,303	1,557	160	586	746
WEST VIRGINIA	981	653	161	167	328
WISCONSIN	2,952	2,483	332	137	469
WYOMING	1,256	979	30	247	277
PUERTO RICO	669	438	54	177	231
TOTAL	127,397	94,751	9,681	22,954	32,635

COUNT OF DEFICIENT BRIDGES BY STATE
OTHER FEDERAL-AID HIGHWAYS
AS OF DECEMBER 1995

	BRIDGES IN INVENTORY	NONDEFICIENT BRIDGES	STRUCTURALLY DEFICIENT	FUNCTIONALLY OBSOLETE	DEFICIENT BRIDGES
ALABAMA	5,064	3,655	704	705	1,409
ALASKA	471	390	37	44	81
ARIZONA	2,182	1,997	46	119	165
ARKANSAS	5,487	4,432	473	582	1,055
CALIFORNIA	6,679	4,931	445	1,302	1,747
COLORADO	2,014	1,661	170	183	353
CONNECTICUT	1,123	755	125	243	368
DELAWARE	236	184	23	29	52
DIST OF COL.	34	14	6	14	20
FLORIDA	2,570	1,938	76	556	632
GEORGIA	5,465	4,094	544	827	1,371
HAWAII	370	166	75	129	204
IDAHO	1,148	947	70	131	201
ILLINOIS	6,909	5,382	856	671	1,527
INDIANA	4,464	3,446	503	515	1,018
IOWA	5,160	4,199	493	468	961
KANSAS	8,085	6,751	533	801	1,334
KENTUCKY	3,336	2,095	254	987	1,241
LOUISIANA	3,599	2,312	655	632	1,287
MAINE	798	481	101	216	317
MARYLAND	1,019	684	103	232	335
MASSACHUSETTS	1,562	653	296	613	909
MICHIGAN	3,844	2,614	662	568	1,230
MINNESOTA	3,732	3,153	417	162	579
MISSISSIPPI	4,961	3,614	933	414	1,347
MISSOURI	6,575	4,192	1,496	887	2,383
MONTANA	1,270	1,073	81	116	197
NEBRASKA	3,816	3,265	351	200	551
NEVADA	287	259	9	19	28
NEW HAMPSHIRE	536	356	87	93	180
NEW JERSEY	1,910	905	481	524	1,005
NEW MEXICO	1,048	891	89	68	157
NEW YORK	4,656	1,851	2,334	471	2,805
NORTH CAROLINA	3,511	2,280	587	644	1,231
NORTH DAKOTA	1,156	1,041	74	41	115
OHIO	7,023	5,176	1,002	845	1,847
OKLAHOMA	8,770	6,310	1,875	585	2,460
OREGON	2,530	1,941	175	414	589
PENNSYLVANIA	6,171	3,305	1,757	1,109	2,866
RHODE ISLAND	247	120	54	73	127
SOUTH CAROLINA	3,193	2,454	232	507	739
SOUTH DAKOTA	1,835	1,650	133	52	185
TENNESSEE	5,591	3,996	565	1,030	1,595
TEXAS	15,157	12,442	718	1,997	2,715
UTAH	657	532	65	60	125
VERMONT	821	474	174	173	347

VIRGINIA	4,161	2,703	462	996	1,458
WASHINGTON	2,177	1,482	158	537	695
WEST VIRGINIA	2,356	1,204	591	561	1,152
WISCONSIN	3,832	2,953	676	203	879
WYOMING	747	686	25	36	61
PUERTO RICO	595	198	103	294	397
TOTAL	170,940	124,287	22,954	23,678	46,632

COUNT OF DEFICIENT BRIDGES BY STATE
NON FEDERAL-AID HIGHWAYS
AS OF DECEMBER 1995

	BRIDGES IN INVENTORY	NONDEFICIENT BRIDGES	STRUCTURALLY DEFICIENT	FUNCTIONALLY OBSOLETE	DEFICIENT BRIDGES
ALABAMA	7,596	4,728	2,070	798	2,868
ALASKA	660	423	75	162	237
ARIZONA	1,504	1,192	89	168	257
ARKANSAS	4,856	2,644	1,510	702	2,212
CALIFORNIA	6,815	4,869	812	1,134	1,946
COLORADO	3,583	2,774	49	318	809
CONNECTICUT	1,245	833	185	227	412
DELAWARE	264	213	32	19	51
DIST OF COL.	75	24	9	42	51
FLORIDA	3,444	2,509	205	730	935
GEORGIA	6,023	3,988	1,594	441	2,035
HAWAII	246	128	44	74	118
IDAHO	2,101	1,670	258	173	431
ILLINOIS	13,795	10,460	2,339	996	3,335
INDIANA	10,111	6,760	2,344	1,007	3,351
IOWA	17,481	11,458	3,981	2,042	6,023
KANSAS	14,567	8,870	3,342	2,355	5,697
KENTUCKY	7,814	5,128	1,235	1,451	2,686
LOUISIANA	7,367	4,091	2,347	929	3,276
MAINE	1,062	641	206	215	421
MARYLAND	1,959	1,233	267	459	726
MASSACHUSETTS	1,206	589	256	361	617
MICHIGAN	4,036	2,609	1,055	372	1,427
MINNESOTA	7,141	5,480	1,228	433	1,661
MISSISSIPPI	9,760	5,242	3,909	609	4,518
MISSOURI	13,833	6,556	6,209	1,068	7,277
MONTANA	2,406	1,698	462	246	708
NEBRASKA	10,367	5,979	3,473	915	4,388
NEVADA	284	226	37	21	58
NEW HAMPSHIRE	1,147	622	292	233	525
NEW JERSEY	1,709	932	459	318	777
NEW MEXICO	884	600	125	159	284
NEW YORK	8,032	2,949	4,775	308	5,083
NORTH CAROLINA	9,999	6,154	2,358	1,487	3,845
NORTH DAKOTA	2,861	1,636	927	298	1,225
OHIO	15,800	10,570	2,683	2,547	5,230
OKLAHOMA	10,907	4,922	5,299	686	5,985
OREGON	2,789	2,203	290	296	586
PENNSYLVANIA	10,849	5,783	3,038	2,028	5,066
RHODE ISLAND	113	43	39	31	70
SOUTH CAROLINA	4,412	3,570	685	157	842
SOUTH DAKOTA	3,465	2,087	1,014	364	1,378
TENNESSEE	9,753	6,888	1,760	1,105	2,865
TEXAS	17,310	11,158	3,511	2,641	6,152
UTAH	950	719	178	53	231
VERMONT	1,385	786	415	184	599
VIRGINIA	5,623	3,664	668	1,291	1,959
WASHINGTON	3,426	2,742	248	436	684
WEST VIRGINIA	3,197	1,681	785	731	1,516
WISCONSIN	6,447	4,843	1,342	262	1,604
WYOMING	987	614	255	118	373
PUERTO RICO	584	254	75	254	329
TOTAL	284,230	178,435	71,285	34,454	105,739

Question. Please provide the Committee a listing of those bridges that received discretionary bridge funds in fiscal years 1994, 1995 and 1996. Include the sufficiency rating of each bridge.

Answer. The information is provided in the following chart.

HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION PROGRAM
DISCRETIONARY BRIDGE PROGRAM

State	Bridge	Amount Allocated	Sufficiency Rating
FY 1994			
New York	Brooklyn	$11,559,425	15.8
Illinois	Clark (US 67)	5,125,120	3.5
Illinois	Franklin St.	1,464,000	24.5
Illinois	Poplar St.	1,330,398	28.0
Ohio	Main Ave.	6,233,600	24.5
Iowa	Burlington	1,912,000	4.0
Iowa	Julien Dubuque	9,426,000	15.0
Colorado	23rd St. Viaduct	25,000,000	4.0
	Total	**62,050,543**	
FY 1995			
South Dakota	Forest City	$ 1,789,494	11.0
Colorado	Broadway Viaduct	2,000,000	2.0
Connecticut	Yellow Mill Pond	8,000,000	49.0
Idaho	Goff	9,800,000	29.4
Illinois	Pulaski	5,800,000	22.0
Maine	Penobscot	7,200,000	2.0
New York	Route 104	6,000,000	47.6
West Virginia	Chelyan	12,000,000	0.0
	Total	**52,589,494**	
FY 1996			
Minnesota	Wabasha Street	$ 6,000,000	2.0
Connecticut	Cos Cob	4,984,282	50.5
Illinois	Michigan Ave. Viad.	7,200,000	47.0
Colorado	Broadway Viaduct	8,000,000	2.0
New Hampshire	Scammel	5,000,000	14.8
New York	Macombs Dam	10,000,000	4.0
New York	I-287/Saw Mill	10,000,000	2.0
South Dakota	Forest City	2,200,000	11.0
Rhode Island	Washington	4,400,000	55.7
Missouri	Chouteau	5,000,000	4.0
Missouri	Cape Girardeau	2,000,000	0.0
	Total	**64,784,282**	

MINIMUM ALLOCATION

Question. Please update the chart found on page 475 of Senate Hearing 104-76, part 1, which shows the amount of minimum allocation apportioned to each state. Please provide the information for fiscal year 1992 through 1996, and the amount estimated for fiscal year 1997.

Answer. The information is provided in the following chart.

MINIMUM ALLOCATION APPORTIONMENTS
FY 1992 THRU FY 1996 AND ESTIMATED FY 1997

STATE	FY 1992	FY 1993	FY 1994	FY 1995	FY 1996	ESTIMATED FY 1997
ALABAMA	24 283 712	23 063.301	32.169.869	30 659 980	7 475 200	15.494 000
ARIZONA	48 943 184	35 588 129	35 622 806	56 381.095	33 680 488	36 034 000
ARKANSAS	48 853 490	30 859 557	33 203 236	42.639 342	16 051 875	23 753 000
CALIFORNIA	135.126.746	146.143 270	189.625.109	321.283.318	79.250.280	103 455.000
FLORIDA	159.082 913	135.967 289	161.433.342	205.227.242	82.176.770	92.173.000
GEORGIA	80.121.375	61 884.629	70.627.291	96.065.341	71.066.717	81.469.000
INDIANA	81.219 913	48 441.208	50.565.606	75.625.592	44.600.256	47.994.000
KENTUCKY	10.551 973	15.274.713	5.674.951	46.545.760	24.910.807	18.855.000
LOUISIANA	4 030 342	4.881.652	0	2.874.052	0	0
MAINE	1.209 959	0	0	0	0	0
MARYLAND	0	36.668.333	44.733.894	0	0	0
MICHIGAN	62.608.271	51.727.851	69.466.216	80.892.559	9.043.181	39.395.000
MISSISSIPPI	22.371.121	9.028.501	15.900.812	22.288.208	0	0
MISSOURI	56 988 903	21.155.468	27.935.873	51 055.638	0	0
NORTH CAROLIN	65.949 471	51.952.238	57.657.110	72.205.409	28.195.826	44.881.000
OHIO	98.837.335	65.109.697	47.632.347	48.662.045	9.333.422	0
OKLAHOMA	36.377.321	21.026.850	15.350.532	31.909.613	75.926	4.912.000
OREGON	1.257.963	0	12.588.802	0	15.381.501	0
PENNSYLVANIA	0	36.392.287	53.342.235	0	0	0
SOUTH CAROLIN	0	4.377.603	24.876.853	0	13.653.277	31.863.000
TENNESSEE	40.094.300	20.960.966	17.289.123	36.875.219	7.126.735	3.663.000
TEXAS	125.464.106	79.827.584	119.393.086	144.526.798	0	39.036.000
VIRGINIA	0	69.394.195	77.643.165	0	33.747.886	48.641.000
WASHINGTON	0	70.188.485	27.350.078	0	0	0
WISCONSIN	56.615.426	40.526.209	43.936.417	61.105.252	22.001.045	28.182.000
TOTAL	1.159.987.624	1.080.460.035	1.234.618.753	1.426.822.463	497.771.192	660.000.000

Question. Please provide the Committee a listing by state of the most current unobligated balances for the minimum allocation funds.

Answer. The information is provided in the following chart.

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

STATUS OF FUNDS PROVIDED FOR
MINIMUM ALLOCATION 90%

AS OF MAY 31, 1996

STATE	TOTAL AVAILABLE	OBLIGATIONS DURING FY 1996	OBLIGATIONS TOTAL TO DATE	UNOBLIGATED BALANCE	UNPAID OBLIGATIONS
ALABAMA	117,652,062.00	4,126,380.17	109,831,596.56	7,820,465.44	49,101,426.57
ALASKA					
ARIZONA	210,415,702.00	5,535,333.63	161,669,378.51	48,746,323.49	48,603,579.93
ARKANSAS	171,607,500.00	14,795,450.00	143,168,270.00	28,439,230.00	42,158,986.00
CALIFORNIA	871,428,723.00	144,738,509.60	645,304,133.84	226,124,589.16	157,819,326.35
COLORADO					
CONNECTICUT					
DELAWARE					
DIST. OF COL.					
FLORIDA	743,887,556.00	66,418,578.00	711,555,007.00	32,332,549.00	225,265,417.00
GEORGIA	379,965,353.00	36,410,884.89-	236,885,571.42	143,079,781.58	162,293,412.93
HAWAII					
IDAHO					
ILLINOIS					
INDIANA	300,452,575.00	38,539,131.20	294,391,450.20	6,061,124.80	88,894,928.36
IOWA					
KANSAS					
KENTUCKY	103,158,204.00	7,471,140.79	50,766,577.61	52,391,626.39	29,627,538.26
LOUISIANA	11,786,046.00	17,498.65-	9,391,105.77	2,394,940.23	2,152,469.77
MAINE	1,209,959.00	60.49	1,129,031.72	80,927.28	1,290.91
MARYLAND	81,402,227.00	722,708.00-	70,411,159.00	10,991,068.00	32,001,759.00
MASSACHUSETTS					
MICHIGAN	273,738,078.00	6,774,283.11	271,410,200.10	2,327,877.90	46,080,605.69
MINNESOTA					
MISSISSIPPI	89,588,642.00	351,562.00	87,370,502.00	2,218,140.00	14,755,497.00
MISSOURI	157,135,882.00	4,310,064.55	132,311,012.77	24,824,869.23	27,099,144.37
MONTANA					
NEBRASKA					

NEVADA					
NEW HAMPSHIRE					
NEW JERSEY					
NEW MEXICO					
NEW YORK					
NORTH CAROLINA	275,960,054.00	17,118,651.00	229,166,253.00	46,793,801.00	74,101,323.00
NORTH DAKOTA					
OHIO	269,574,846.00	49,200,872.90	200,677,417.84	68,897,428.16	60,784,921.85
OKLAHOMA	104,740,242.00	980,555.92	92,484,274.00	12,255,968.00	36,480,971.29
OREGON	29,228,266.00	3,503,898.74-	2,382,380.48	26,845,885.52	1,066,316.66
PENNSYLVANIA	89,734,522.00	426,433.44	85,683,893.65	4,050,628.35	20,140,259.39
RHODE ISLAND					
SOUTH CAROLINA	42,907,733.00	266,816.00-	25,721,072.76	17,186,660.24	16,684,319.06
SOUTH DAKOTA					
TENNESSEE	122,366,383.00	13,621,125.12	87,337,681.75	35,026,671.25	55,366,339.75
TEXAS	469,211,574.00	10,433,265.79	418,918,794.75	50,292,779.25	136,752,159.66
UTAH					
VERMONT					
VIRGINIA	180,785,246.00	11,394,190.00	89,184,025.37	91,601,220.63	39,379,333.24
WASHINGTON	97,538,563.00	1,922,919.43	96,042;160.07	1,496,402.93	20,558,209.17
WEST VIRGINIA					
WISCONSIN	224,184,349.00	17,972,940.45	206,429,409.58	15,754,939.42	37,229,654.60
WYOMING					
PUERTO RICO					
TOTAL	5,399,990,287.00	375,189,940.31	4,441,622,369.75	958,037,897.25	1,426,358,189.80

ISTEA DEMOS

Question. Please list by state the amount of funds each state has received under special demonstration projects allocated under Public Law 102-240 (ISTEA), for fiscal years 1992 through 1997.

Answer. The information is provided in the following chart.

State	Funds Allocated FY92-96	Funds Anticipated In FY97	Total Anticipated Funds
Multi_State	792,922	184,000	976,922
Alabama	125,391,109	29,097,392	154,488,501
American Samoa	1,823,720	423,200	2,246,920
Arizona	9,673,649	2,244,800	11,918,449
Arkansas	270,025,483	62,660,243	332,685,726
California	288,707,182	67,923,600	356,630,782
Colorado	2,299,474	533,600	2,833,074
Connecticut	62,958,012	14,609,600	77,567,612
D.C.	17,957,547	4,066,400	22,023,947
Florida	142,377,086	33,039,040	175,416,126
Georgia	88,004,834	20,421,792	108,426,626
Hawaii	4,757,532	1,104,000	5,861,532
Idaho	55,821,713	12,953,600	68,775,313
Illinois	373,888,639	46,152,720	420,041,359
Indiana	75,248,306	17,461,600	92,709,906
Iowa	90,176,648	20,925,768	111,102,416
Kansas	57,883,310	13,432,000	71,315,310
Kentucky	86,527,117	3,974,400	90,501,517
Louisiana	55,544,057	12,909,440	68,453,497
Maine	148,355,718	34,426,400	182,782,118
Maryland	64,590,225	17,682,400	82,272,625
Massachusetts	4,678,240	1,085,600	5,763,840
Michigan	98,369,912	22,827,040	121,196,952
Minnesota	165,514,551	38,408,160	203,922,711
Mississippi	26,118,996	6,040,720	32,159,716
Missouri	114,238,661	26,509,432	140,748,093
Montana	14,272,597	3,312,000	17,584,597
Nebraska	19,838,911	4,603,680	24,442,591
Nevada	70,684,757	15,474,400	86,159,157
New Hampshire	25,452,798	5,906,400	31,359,198
New Jersey	160,883,888	37,333,600	198,217,488
New Mexico	8,563,558	1,987,200	10,550,758
New York	282,938,378	65,656,720	348,595,098
North Carolina	115,925,208	26,900,800	142,826,008
North Dakota	56,297,465	13,064,000	69,361,465
Ohio	125,408,552	29,101,440	154,509,992
Oklahoma	70,205,319	16,291,360	86,496,679
Oregon	36,474,414	8,464,000	44,938,414
Pennsylvania	699,127,311	162,234,640	861,361,951
Rhode Island	45,521,655	10,563,440	56,085,095
South Carolina	30,686,083	7,120,800	37,806,883
South Dakota	14,843,501	3,444,480	18,287,981
Tennessee	32,742,923	7,598,096	40,341,019
Texas	192,406,661	44,648,557	237,055,218
Utah	8,642,850	2,005,600	10,648,450
Vermont	15,858,441	3,680,000	19,538,441
Virgin Islands	15,937,734	3,698,400	19,636,134
Virginia	124,788,241	25,668,000	150,456,241
Washington	71,045,816	16,486,400	87,532,216
West Virginia	247,233,099	57,371,200	304,604,299
Wisconsin	56,693,927	13,156,000	69,849,927
Wyoming	15,858,441	3,680,000	19,538,441
Totals	4,990,057,169	1,100,548,160	6,090,605,329

Question. Please provide the Committee the most current listing by state of the amount of unobligated balances of ISTEA demonstration project funds.

Answer. The information is provided in the following chart.

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

ISTEA (1991) DEMOS - UNOBLIGATED FUNDS BY DEMO ID AND STATE

AS OF MAY 31, 1996

SECTION NUMBER	PHYSICAL CONST	TOTAL CONTRACT AUTHORITY	OBLIGATIONS	UNOBLIGATED FUNDS
ALABAMA		154,488,501.00	82,360,101.04	72,128,399.96
ARIZONA		11,918,449.00	3,635,296.00	8,283,153.00
ARKANSAS		333,858,032.00	180,751,278.00	153,106,754.00
CALIFORNIA		356,630,782.00	137,297,718.00	219,333,064.00
COLORADO		2,833,074.00	1,832,200.00	1,000,874.00
CONNECTICUT		77,567,612.00	58,275,499.00	19,292,113.00
DIST. OF COL.		22,023,946.00	607,568.41	21,416,377.59
FLORIDA		175,416,126.00	55,300,282.00	120,115,844.00
GEORGIA		108,426,626.00	40,899,780.18	67,526,845.82
HAWAII		5,861,532.00		5,861,532.00
IDAHO		68,775,313.00	31,742,128.63	37,033,184.37
ILLINOIS		420,041,359.00	312,032,101.50	108,009,257.50
INDIANA		92,709,906.00	46,890,486.78	45,819,419.22
IOWA		111,102,416.00	70,755,904.89	40,346,511.11
KANSAS		71,461,848.00	31,434,353.00	40,027,495.00
KENTUCKY		90,501,517.00	76,705,720.09	13,795,796.91
LOUISIANA		68,350,349.00	8,081,484.80	60,268,864.20
MAINE		182,782,118.00	123,621,096.46	59,161,021.54
MARYLAND		82,272,626.00	39,785,365.04	42,487,260.96
MASSACHUSETTS		5,763,840.00		5,763,840.00
MICHIGAN		121,196,952.00	55,558,698.58	65,638,253.42
MINNESOTA		203,922,711.00	110,249,554.00	93,673,157.00
MISSISSIPPI		32,262,265.00	14,629,954.00	17,632,311.00
MISSOURI		140,748,093.00	90,883,594.92	49,864,498.08
MONTANA		17,584,597.00	3,508,485.00	14,076,112.00
NEBRASKA		24,442,591.00	15,535,263.33	8,907,327.67
NEVADA		86,159,147.00	58,110,748.00	28,048,399.00
NEW HAMPSHIRE		31,359,198.00	20,947,265.36	10,411,932.64
NEW JERSEY		198,217,488.00	64,921,415.68	133,296,072.32
NEW MEXICO		10,550,758.00	8,321,332.28	2,229,425.72
NEW YORK		348,595,098.00	169,136,123.00	179,458,975.00
NORTH CAROLINA		142,826,006.00	75,705,147.00	67,120,859.00
NORTH DAKOTA		69,361,465.00	52,635,270.03	16,726,194.97
OHIO		154,509,992.00	28,105,826.00	126,404,166.00
OKLAHOMA		86,574,833.00	51,781,451.21	34,793,381.79
OREGON		44,938,414.00	15,529,231.44	29,409,182.56
PENNSYLVANIA		861,361,951.00	223,303,274.01	638,058,676.99
RHODE ISLAND		56,085,095.00	24,875,695.14	31,209,399.86
SOUTH CAROLINA		37,806,883.00	24,458,400.00	13,348,483.00
SOUTH DAKOTA		18,280,596.00	2,133,600.00	16,146,996.00
TENNESSEE		40,341,019.00	17,089,820.16	23,251,198.84
TEXAS		237,055,218.00	85,806,379.80	151,248,838.20
UTAH		10,726,604.00	5,634,243.00	5,092,361.00
VERMONT		19,538,441.00	1,948,766.65	17,589,674.35
VIRGINIA		150,411,241.00	70,694,813.54	79,716,427.46
WASHINGTON		87,532,216.00	69,935,454.00	17,596,762.00
WEST VIRGINIA		304,604,299.00	98,097,137.00	206,507,162.00
WISCONSIN		69,849,927.00	54,054,910.96	15,795,016.04
WYOMING		19,538,441.00	12,640,000.00	6,898,441.00
AMERICAN SAMOA		2,246,920.00	897,600.00	1,349,320.00
VIRGIN ISLANDS		19,636,134.00	4,277,196.00	15,358,938.00
U. S. TOTAL		6,091,050,565.00	2,833,415,013.91	3,257,635,551.09

TIMBER BRIDGE PROGRAM

Question. Please provide the Committee the amount of funds that have been expended, authorized, and obligated by fiscal year under section 1039 of P.L. 102-240.

Answer. The information is provided in the following chart.

HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION PROGRAM
TIMBER BRIDGE CONSTRUCTION GRANT PROGRAM

FY	PREVIOUS FY CARRYOVER	AVAILABLE	ALLOCATION	ACCUMULATIVE ALLOCATION	UNALLOCATED BALANCE
92	$ 0	$ 7,000,000	$ 4,498,535	$ 4,498,535	$ 2,501,465
93	2,501,465	10,001,465	9,358,403	13,856,938	643,062
94	643,062	8,143,062	7,104,190	20,961,128	1,038,872
95	1,038,872	8,538,872	6,228,572	27,189,700	2,310,300
96	2,310,300	9,810,300	9,227,742	36,417,442	582,558

Funding set-asides are shown below:

FY	APPROPRIATION	CONSTRUCTION GRANTS	RESEARCH GRANTS
92	$8,000,000	$7,000,000	$1,000,000
93	8,500,000	7,500,000	1,000,000
94	8,500,000	7,500,000	1,000,000
95	8,500,000	7,500,000	1,000,000
96	8,500,000	7,500,000	1,000,000
97	8,500,000	7,500,000	1,000,000

Question. Why has the administration requested in section 310(g) of the general provisions a prohibition against the use of any funds in 1997 for the highway bridge research and demonstration program?

Answer. Section 1034 Highway Timber Bridge and Demonstration Program of the Intermodal Transportation Efficiency Act of 1991 provides $1.0 million per year for Timber Research and $7.5 million per year for Timber Bridge Construction. The program has stirred up a great deal of controversy by the steel and concrete industries who believe that they are being treated unfairly by special interest groups. The funding for this program is a takedown from the very much needed discretionary bridge program. We believe that the rebuilding of the Nations deteriorating infrastructure would be best served by discontinuing the Program in FY 1997 and using the money to fund the much needed discretionary bridge program.

TAKEDOWN CONTRACT AUTHORITY

Question. Please detail, by program, the amount of takedown authority in fiscal year 1996 ($396,000,000) and fiscal year 1997 ($784,000,000).

Answer. The following table illustrates the takedown authority by programs.

ANALYSIS OF THE ADMINISTRATIVE TAKEDOWN COMPUTATION
FY 1996 - 1997
(Dollars in Thousands)

	FY 1996	
	Contract Authority [1]	Administrative Takedown [2]
Programs Subject to Takedown:		
National Highway System	$3,148,475	$118,068
Surface Transportation Program	3,583,140	134,368
Bridge Program	2,416,455	90,617
Interstate Maintenance	2,548,516	95,569
Congestion Mitigation/Air Quality Impr. Pgm	899,939	33,748
Interstate System Reimbursement	1,749,153	65,593
Federal Lands	414,891	15,558
Donor State Bonus	449,532	16,857
Subtotal	$15,210,101	$570,378
Less:		
Reduction per Section 335 of P.L. 104-50		-14,003
Reduction per Section 203(a)(10) of P.L. 104-59		-119,626
Excluding:		
Applied Research and Technology Program		-41,000
TOTAL		$395,749

	FY 1997	
	Contract Authority	Administrative Takedown [3]
Programs Subject to Takedown:		
National Highway System	$3,600,000	$171,000
Surface Transportation Program	4,097,000	194,608
Bridge Program	2,763,000	131,243
Interstate Maintenance	2,914,000	138,415
Congestion Mitigation/Air Quality Impr. Pgm	1,029,000	48,878
Interstate System Reimbursement	2,000,000	95,000
Federal Lands	447,000	21,233
Donor State Bonus	515,000	24,463
Subtotal	$17,365,000	$824,840
Excluding:		
Applied Research and Technology Program		-41,000
TOTAL		$783,840

[1] The Contract Authority listed for FY 1996 is net of the Sec. 1003(c) of P.L. 102-240 reduction.

[2] In FY 1996, FHWA utilized a 3.75% takedown.

[3] The FY 1997 budget proposes a 4.75% takedown.

Question. Please explain section 203(c) of P.L. 104-59, transfer of funds. How is the $25,000,000 figure derived? For what types of projects will these funds be used?

Answer. Section 1012(b) of the Intermodal Surface Transportation Efficiency Act of 1991 (P.L. 102-240) authorized $25 million a year for fiscal years 1992 through 1997 for the Congestion Pricing Pilot Program. Section 203(c) of the National Highway System Designation Act of 1995 (P.L. 104-59) transferred the funding for the Congestion Pricing Pilot Program in fiscal years 1996 and 1997 and made it available to carry out projects eligible for assistance under chapter 1 of title 23, United States Code. Since chapter 1 covers the Federal-aid Highway Program, these funds are now eligible for use on any Federal-aid Highway project, subject to the obligation limitations of the given fiscal year.

MOTOR CARRIER COVERAGE AND RESOURCES AVAILABLE

Question. In fiscal year 1995, 8,800 compliance reviews were performed by 291 Federal and 190 state investigators on the more than 345,000 Interstate carriers. Does FHWA consider this coverage to be sufficient?

Answer. FHWA's major concern relative to the sufficiency of the number of compliance reviews conducted during FY 1995 is whether the 8,800 reviews were performed on the carriers posing the greatest risk to highway safety. By necessity, we focus our compliance and enforcement resources on carriers which have demonstrated through accidents, roadside inspections and other means that they are presenting the greatest threat to highway safety. The remaining carriers are addressed through broad educational and outreach efforts to promote compliance with the regulations. This strategy maximizes the effectiveness of FHWA's efforts in reducing crashes involving commercial motor vehicles and ensuring that our resources are directed at those carriers which pose the greatest risk to safety.

The FHWA deals directly and day-to-day with motor carriers, owner-operators, commercial drivers, mechanics, licensing agencies, State enforcement officials and unions. The FHWA also works closely with the print and electronic media that specialize in serving the motor carrier industry in its education and outreach programs. The following editorial, "The Gunther Decision," published in the March 1996 edition of *Overdrive,* highlights one example of the FHWA's efforts to improve truck safety:

"Truckers and motor carriers who are under the illusion that log books are 'comic books' and can be dismissed with a wink-of-the-eye are in for a rude awakening."

"Truckers who have previously blamed companies for forcing them to drive excessive hours no longer have a valid excuse. A single thread in the fabric of log book issues has changed dramatically with a precedent-setting legal case. The boom has been lowered on a Maryland trucking company with a history of forcing its drivers to exceed hours of service."

"The decision in the case was reported by *Overdrive's* Washington Editor Rita Bontz in the February issue. A federal grand jury convicted Gunther Leasing Transport, Hanover, Maryland, of falsifying log books. This is the first time a trucking company, along with its president, has been convicted on *criminal, not misdemeanor,* charges."

"Gunther faces maximum fines of $500,000 on each count. Its president, Mark Gunther, found guilty of conspiracy, making false statements and perjury, could receive up to 10 years in prison and up to $500,000 in fines. Gunther's lawyers more than likely will appeal."

"The Gunther conviction came after a four-year investigation by agents of the FBI and the Federal Highway Administration. Gunther drivers complained they were forced to exceed hours of service. What really added fuel to the fire was an accident on Washington's Beltway, which involved a Gunther truck, the death of an automobile passenger and injury to several construction workers."

"Investigators basically told *Overdrive* the Gunther situation was unbelievable. An ex-company officer was required to change driver's log books on a regular basis, court testimony said incriminating documents were destroyed and, now, Gunther is about to get pole-axed with 60 civil charges that allegedly include continuing to use a driver who tested positive for controlled substances."

"In today's vernacular, the Gunther decision is a wake-up call for the trucking industry. And it should be. Pushing drivers to the limits is motivated by greed, plain and simple."

"Gunther drivers had had enough abuse, so they did something about it. Because they acted, a company is in serious trouble and a company president could very well go to prison. Not only is the Gunther decision a landmark case, it proves that truckers, despite popular opinion, do not have to run illegally just because a company orders them to."

"As for truckers who run illegally by choice, well, that's your decision, your problem and, based on the Gunther case, could be your jail term."

Question. The number of compliance reviews per safety investigator varies significantly from 1 to about 100 a year. The average annual number of compliance reviews per safety investigator was 20. Why are some safety investigators not doing more compliance reviews?

Answer. While there is significant variance in the number of compliance reviews conducted by individual investigators, it should be noted that fewer than ten reviews annually typically reflect the activity of supervisors or managers who only occasionally conduct a review. Nevertheless, while some of the variance occurs for the same reasons it occurs in any job, there are also differences in how some of the safety investigators are utilized in the field. This typically is due to varying levels of expertise and other skills each individual may have. For example, major investigations are typically given to the most experienced staff and often result in a higher level of enforcement, thereby requiring more time per compliance review. In other situations, some individuals are requested to participate in technical advisory groups, special projects, and other typically non-investigative roles because their field experience will provide the needed knowledge and skills for a successful product. Others are hardly ever requested to deviate from their investigative responsibilities. This, again, is something considered at the State Director level when preparing individual performance appraisals.

Questions: The report by the Senate Committee on Appropriations for FY 1996 urged the FHWA Administrator to reduce unnecessary demands on the Office of Motor Carriers that interfere with the conduct of basic safety functions, especially those related to enforcement activities. FHWA data shows that in FY 1995, compliance reviews by Federal safety investigators decreased from about 6,700 to 5,400. Why has this occurred and what is FHWA doing to reduce unnecessary demands upon safety investigators? What has FHWA done to determine whether it can assign additional positions to increase the number of compliance reviews?

Answer. The reduction in compliance reviews during FY 1995 was due to a number of factors including: the increased amount of time required to conduct a compliance review due to additional responsibilities (e.g., drug and alcohol testing, accident countermeasures, commercial driver license activities); increased level of enforcement per compliance review; training Motor Carrier Safety Assistance Program State agencies in how to conduct compliance reviews; special projects; technical advisory groups; and other matters.

FHWA has taken significant steps toward streamlining the compliance review and enforcement case preparation processes. The time saved through this streamling should result in an increase in the number of compliance reviews conducted in future years. Additionally, we are reassessing several of our programmatic and operational policies and procedures and the demands they are placing on the field staff. The technical advisory groups and other operational meetings have also been scaled back this year. This has helped in allowing more time for the safety investigators to get involved in other important safety functions.

In an effort to improve the efficiency of the positions in the field, FHWA is reviewing the role of Division-level specialists and field office supervisors. Consistent with the National Performance Review, headquarters functions are also being reviewed to determine which can be eliminated or transferred to the field. The primary goal of these effects is to ensure that the OMC will be in a better position to concentrate its resources on those high risk carriers where enforcement is most needed.

Question. The number of carriers per safety investigator varies significantly among Regions. What is the reason for these differences and how does FHWA ensure that safety resources are allocated to meet the needs of the Regions?

Answer. The FHWA distributes resources to the Regions based on an allocation model developed by the Regional Directors with guidance from headquarters. Several factors are considered in determining the staffing levels for each Region. The staffing model is run every two to three years to ensure changes in the program are considered in the staffing distribution. We are currently in the process of re-evaluating the staffing numbers developed two years ago. The number of carriers in a Region is a factor used to determine staffing, but other factors relating to problem carriers and fatal crashes are also considered.

Question. Canada is initiating legislation to provide for periodic reviews of every carrier by independent third-party contractors. They will require that the carrier pay for the review. Could we adopt this system in the United States? What are the legislative obstacles to this approach?

Answer. Right of entry by third-party contractors would be a possibility that would have to be considered for its legality and then legislated by the Congress. Some Canadian provinces have adopted legislation or are in the process of adopting legislation requiring periodic reviews. However, several provinces have stated that they will not adopt legislation to provide for periodic reviews of every carrier by independent third-party contractors. They believe this would place an unfair economic burden on the small motor carriers that are not having accidents and those which have demonstrated they are in compliance with the regulations.

We are internally discussing such a system and the possible uses of information gathered by third-party contractors. Particularly in areas where there is a paucity of data, such as motor coach inspections, we are working with the Department of Defense to determine if we can use bus inspection information gathered through one of its contractors. We have been advised by our legal counsel that the Federal government cannot contract out its right of entry authority to third-party contractors without some type of corrective legislation. If FHWA pursues this approach, the expected legislative obstacles are first and foremost the re-delegating of Federal authority/responsibility.

Another issue of concern relative to third party contractors conducting periodic reviews is the need for certification of the contractors and monitoring of their activities to ensure quality control and uniformity. The FHWA does not believe a system such as what is being piloted in Canada would be the most productive use of our very limited resources. Instead, we believe the utilization of performance data to identify high-risk carriers for contact offers the best return on our resource expenditure.

STATE PARTICIPATION

Question. The number of states performing compliance reviews has been steadily increasing. However, in fiscal year 1995 there were still eleven states and the District of Columbia not doing any reviews and another nine states are doing ten reviews or less. Why are states either not participating in compliance reviews or doing a minimal number?

Answer. Not all States have the authority to perform compliance reviews and it is not a requirement for funding under MCSAP. OMC has encouraged and offered incentives to States that adopt regulations to enable them to perform compliance reviews. Through training and supplemental grants, the FHWA continues to encourage implementation of the compliance review and other comprehensive safety programs. This summer, as the States are developing their commercial vehicle safety programs for FY 1997, we will know whether additional States will conduct compliance reviews. Our emphasis has been on encouraging States to develop comprehensive programs and participate in a broad range of commercial vehicle safety programs that address specific safety problems in each State rather than establishing mandatory activity levels.

Question. How can FHWA get the twenty States and the District of Columbia to participate in the compliance review program? What incentives or disincentives does FHWA have to influence these states?

Answer. FHWA is encouraging the States to evaluate their commercial vehicle safety data and design their programs to focus their efforts and resources toward their unique commercial motor vehicle safety problem. States that implement comprehensive motor carrier safety programs are eligible for supplemental incentive grants. This has proven to be an effective incentive for States to participate in the compliance review program.

Question. Please provide for the record, by State, the number of compliance reviews and roadside inspections performed in fiscal year 1995 and explain the reasons why some States are doing ten to twenty times more compliance reviews than others. Why can some States perform so many and others so few?

Answer. Below is a table from the MCSAP Quarterly Report Information System showing the State by State number of inspections and compliance reviews (CRs) entered into the SAFETYNET system for fiscal year 1995.

There are a number of factors that impact on the number of compliance reviews a State can conduct: the size of the individual State's commercial vehicle program; available resources; whether or not the State has authority to conduct CRs; and whether or not the State believes the CR process is the best employment of resources based on the commercial motor vehicle activity and safety status of the carriers located in, or driving through, a given State.

Region 1

State	Total Inspections	Total Compliance Reviews
CT	14,656	44
MA	25,216	0
ME	7,754	70
NH	12,153	10
NJ	33,999	9
NY	46,740	41
PR	4,732	0
RI	5,579	0
VT	7,239	0

Region 3

State	Total Inspections	Total Compliance Reviews
DC	3,503	0
DE	3,724	0
MD	86,744	14
PA	49,347	0
VA	16,653	0
WV	17,101	47

Region 4

State	Total Inspections	Total Compliance Reviews
AL	21,169	5
FL	32,654	0
GA	34,929	115
KY	74,424	265
MS	21,322	0
NC	50,030	15
SC	28,495	1
TN	49,180	37

Region 5

State	Total Inspections	Total Compliance Reviews
IL	80,402	102
IN	58,369	0
MI	45,858	177
MN	26,034	593
OH	70,108	1,222
WI	29,586	298

Region 6

State	Total Inspections	Total Compliance Reviews
AR	34,942	0
LA	38,019	26
NM	18,204	16
OK	10,198	46
TX	63,184	234

Region 7

State	Total Inspections	Total Compliance Reviews
IA	47,760	1
KS	23,017	10
MO	66,503	703
NE	22,416	27

Region 8

State	Total Inspections	Total Compliance Reviews
CO	40,250	84
MT	23,337	67
ND	13,213	31
UT	17,113	590
WY	11,119	0

Region 9

State	Total Inspections	Total Compliance Reviews
AS	3,706	0
AZ	32,765	97
CA	232,756	0
GU	4,734	0
HI	6,969	0
MP	126	0
NV	11,611	0

Region 10

State	Total Inspections	Total Compliance Reviews
AK	1,819	0
ID	6,229	62
OR	28,033	0
WA	89,377	48
Totals:	1,805,600	5,106

Question. In fiscal year 1995, the states performed 3,400, or about 39 percent of the 8,800 compliance reviews. Why was the percentage of enforcement cases in state compliance reviews only 8 percent as compared to 31 percent of the compliance reviews conducted by Federal safety investigators?

Answer. FHWA's safety investigators conduct reviews of high-risk motor carriers typically because of accidents, unsafe operating practices, complaints, and enforcement follow-ups. Many of these carriers have previously been contacted by FHWA, or the States, and have not responded to nonenforcement techniques previously used to improve their operational safeness. As FHWA's risk assessment and carrier selection techniques have improved, and the experience of its safety investigators has increased, the percent of enforcement resulting from compliance reviews has dramatically increased to the level of 31 percent.

For many States, conducting compliance reviews is a new activity. Working in partnership, FHWA does not request the States to review the more serious problem carriers until the State has achieved sufficient experience. This practice is no different than FHWA's development of its own investigative staff. As the States increase their experience they also address the most unsafe motor carriers through compliance reviews and enforcement. A number of States (e.g. CT, IL, IN, LA, and TX) already have a level of enforcement that equals or exceeds that of the FHWA. Unfortunately, the turnover rate of State employees involved in compliance reviews is typically much higher than the FHWA, thereby increasing the amount of time required to build its experience base. In addition, some States initiate enforcement actions (including tickets/citations) which are not included in FHWA's database. This results in an understatement of the amount of enforcement actually initiated through the State compliance review activities.

Question. What has FHWA done to assess the quality and effectiveness of compliance reviews performed by the states?

Answer. FHWA assures quality and effectiveness in State compliance reviews by providing State enforcement staff with formal classroom and on-the-job training, supplemented with continuous follow-up monitoring. During the early stages of a State's compliance review involvement, FHWA's monitoring typically involves hands-on report reviews to assess the base level of quality supplemented with additional OJT as required. As the State increases its experience and level of quality, reviews are electronically monitored to track performance and to identify anomalies within its program. Problems are identified and corrected in partnership with the States.

FHWA is also initiating a series of operational reviews which incorporate quality and results oriented assessments of each program area, including the effectiveness of State compliance reviews. Additionally, an improved series of automated quality management reports is being developed for implementation during FY 1997. These reports will further assess the quality and effectiveness of both State and Federal compliance reviews.

FINES AS A DETERRENT

Question. FHWA views the compliance review process as an educational tool rather than an enforcement tool. Since it is unlikely that compliance reviews will cover all 345,000 motor carriers, is compliance reviews the most effective and economical educational tool?

Answer. The compliance review (CR) is FHWA's primary enforcement tool. The CR is used to determine a motor carrier's or hazardous materials shipper's degree of compliance with the Federal Motor Carrier Safety Regulations and Hazardous Materials Regulations. Although education and technical assistance are provided to a motor carrier/shipper during a CR, the CR is the primary foundation for the majority of our enforcement actions.

The CR process has been time tested (over 25 years) and survived many legal challenges. It will continue to serve as our primary enforcement tool.

The FHWA is researching other methods to automate the monitoring of carriers that have not been identified as "high risk." The Automated Safety Assessment Program will gather data submitted by thousands of motor carriers in a standard electronic format. This program, when fully implemented, will greatly assist our monitoring efforts and allow OMC to concentrate its CR process on the "high-risk"carriers where enforcement is needed.

Question. Fines assessed as a result of compliance reviews are limited by statute. Has FHWA evaluated whether the fines assessed are effectively deterring motor carriers from violating the Federal Motor Carrier Safety Regulations and Hazardous Materials Regulations? Should statutory limitations be raised to increase the effectiveness of penalties as a deterrent?

Answer. FHWA's strategy to encourage motor carriers to comply with the regulations is to promote voluntary compliance. We focus a great deal of our efforts on education and technical assistance in our contacts with the industry to accomplish this. The compliance review is the most visible contact we use to promote compliance. An enforcement case is a component of the compliance review and is used regularly to encourage compliance when other efforts have failed or when certain serious violations are discovered. Data reveals that compliance reviews conducted on high-risk carriers improve the carrier's safety posture nearly 80 percent of the time.

Enforcement follow-up reviews conducted on carriers which have a demonstrated history of unacceptable compliance have produced safety fitness rating results which are better than the National average (68 percent vs 55 percent satisfactory, 23 percent vs 32 percent conditional, and 9 percent vs 13 percent unsatisfactory). As such, we believe the additional attention and associated penalties provided to the carriers through an enforcement proceeding are effective in improving the carriers compliance in most cases.

At this time, the FHWA is assessing the effectiveness of each of the penalty limits and will request higher limits, if appropriate, in our request for reauthorization of ISTEA. Our current focus is on maximizing the communication of our enforcement activities throughout the industry in order to promote "general deterrence." Through this means, we believe we can positively influence the behavior of many more carriers, thereby improving safety.

Question. In fiscal year 1995, initial compliance reviews were performed on approximately 3,000 carriers. FHWA's unwritten policy is not to take enforcement action against carriers who receive an unsatisfactory rating during their initial compliance review unless a serious violation is found. Because FHWA limits follow-up reviews to enforcement cases, how does FHWA ensure that a carrier rated unsatisfactory on its initial review is brought into compliance with the motor carrier safety regulations?

Answer. The FHWA does not limit follow-up reviews to enforcement cases. All motor carriers are in the Selective Compliance and Enforcement Program, which prioritizes carriers for compliance reviews on their potential risk. Carriers with an unsatisfactory rating receive a higher ranking than carriers with a conditional or satisfactory rating.

The FHWA focuses on motor carriers that have unsatisfactory ratings and directs its resources toward carriers that have demonstrated poor performance. We are continually working to develop better, more performance-oriented means of prioritizing motor carriers for compliance reviews. One such means is the Safetstat identification formula, as part of the Commercial Vehicle Identification System pilot program. Safetstat uses performance and compliance dat from four evaluation areas (Accidents, Driver, Vehicle, and Safety Management) to rank/score motor carriers. The FHWA is considering the possibility of implementing Safestat on a national basis as its primary means of prioritizing carriers for compliance reviews.

Question. Data supplied in the prior hearing shows that the use of compliance and consent orders varies significantly among regions and were used most in Regions 1, 3, and 5. Please provide data on the number of compliance, consent, and out-of-service orders issued by region in fiscal years 1994 and 1995.

Answer. The information follows:

REGION	COMPLIANCE ORDER		CONSENT ORDER		OUT-OF-SERVICE ORDER	
	FY 94	FY 95	FY 94	FY 95	FY 94	FY 95
1	39	13	61	36	5	5
3	40	51	42	52	9	7
4	0	0	3	1	1	3
5	79	65	73	55	3	1
6	20	36	2	6	4	1
7	63	6	28	14	29	4
8	11	2	6	0	12	4
9	3	20	2	1	2	6
10	13	31	6	0	1	0
TOTAL	268	223	223	165	66	31

Question. As of October 31, 1995, there were about 120 disputed enforcement cases referred to Headquarters for action. What is the current backlog of disputed enforcement cases and what actions have been taken or planned to alleviate the problem? Please give dispositions of disputed enforcement cases settled in fiscal years 1994 and 1995.

Answer. Currently, there are six enforcement cases awaiting an administrative hearing at the administrative law judge level. There are an additional 82 cases awaiting a decision by the Associate Administrator for Motor Carriers. There are also four cases before the U.S. Court of Appeal. FHWA has in the past supplemented the legal staff processing the disputed cases on an as needed basis, but once the backlog declined, the extra help returned to their regular duties until the next backlog. Recently, a full-time attorney was hired to do nothing but assure these cases are processed in a timely manner. Once the current backlog is eliminated, it should not recur.

During FY 1994, there were 80 decisions rendered concerning disputed enforcement cases forwarded to headquarters for resolution. Of those, 75 were decided in the favor of FHWA and five cases were dismissed. For 1995, there were twenty-two decisions regarding disputed enforcement cases sent to headquarters. Eighteen of these were decided in favor of FHWA while four were dismissed.

Question. What are FHWA's procedures for referring cases to the Inspector General? How many cases were referred to the Inspector General in fiscal years 1994 and 1995? How many carriers were criminally prosecuted in fiscal years 1994 and 1995 for violating the motor carrier safety regulations?

Answer. The FHWA's procedures for referring cases to the Inspector General are outlined in DOT Order 8000.5A dated 12-27-89. The order authorizes the Inspector General to receive and investigate complaints or information concerning the possible existence of any activity constituting a violation of law, rules, regulations, mismanagement, gross waste of funds, abuse of authority, or a substantial and specific danger to the public health and safety. During the period of FY 1994 and FY 1995, four cases were referred to the Inspector General and one case was criminally prosecuted.

There are no FHWA operational directives to the field which specify when to forward a motor carrier regulatory case to the Inspector General, since each case is handled on its own merits and in the manner most beneficial in achieving the purpose of the enforcement action. The methods of handling include civil forfeiture procedures, administrative hearings, the U.S. Attorney, and the Inspector General. Typically the Inspector General cases are ultimately handled by the U.S. Attorney's Office.

EFFECTIVENESS OF COMPLIANCE REVIEW PROGRAM

Question. FHWA has told the committee that its efforts should be measured by improvements in safety. However, in 1994 deaths resulting from crashes involving trucks weighing 10,000 pounds or more and non-fatal injuries involving these trucks continues to increase. What quantitative evidence can you provide to demonstrate the effectiveness of this program?

Answer. FHWA believes that all government program should be assessed in terms of their results, i.e., the performance achieved. To do this for the motor carrier program requires development of benchmarks from which change, or results, can be measured.

One year's worth of information; however, is not sufficient to judge the overall results of a particular activity or of a program. Any change from one year to another may be the result of factors that have nothing to do with the activity or program being judged. The increase in the number of deaths resulting from crashes involving large trucks also may be simply a reflection of the general trend in all fatal crashes. For each of the past 3 years, this number has increased. Thus, the increase in 1994 for large trucks could be more of a reflection of changes in safety of transportation overall than a reflection of the safety of large trucks in particular.

In fact, the increase in the number of deaths that occurred in crashes which involved large trucks in 1994 does not indicate what is happening overall in truck safety. The trend for the past 10 years shows that trucking is as safe today as ever. For trucks over 10,000 pounds gross vehicle weight rating:

- fatal crashes per registered vehicles declined almost 25 percent;
- fatal crashes per million vehicle miles traveled declined 40 percent;
- fatalities from crashes that involve large trucks and buses declined 12 percent; and
- less than 10 percent of the vehicles involved in all fatal highway crashes were large trucks.

For the motor carrier program, the measures used to assess results must also attempt to factor out the impacts that changes in car safety and car driver behavior have on the number of fatal crashes that involve large trucks. The number of fatal crashes or injury crashes involving large trucks or crash rates per million miles traveled, thus, may not be the best measures for the effectiveness of compliance reviews.

As a result, a number of efforts are currently underway to assist FHWA in determining how well the compliance review program--as well as other key safety programs--contributes toward the goal of a crash-free environment. These efforts depend on several carefully designed activities that include improving our data analysis, developing a benchmark that is an accurate reflection of the condition of the commercial motor vehicles and drivers on the roads, developing a supplemental database resulting from crash investigations, and developing the relationships between our programs and compliance with the Federal Motor Carrier Safety Regulations to safety.

Question. What is the percentage of carriers that remain in non-compliance after a follow-up compliance review? Does this indicate penalties are too low?

Answer. Follow-up compliance reviews are generally conducted on motor carriers who have demonstrated through their own actions that educational and administrative methods of promoting compliance will not produce an acceptable level of safeness. They have typically been provided at least two compliance reviews and have been fined for specific violations. In most cases, these measures will produce sufficient incentive for the carrier to comply. In other cases, economics produce a greater incentive for noncompliance which results in continuous compliance reviews and escalating enforcement until the carrier improves or is placed out of business.

The ratings resulting from 967 follow up compliance reviews conducted during FY 1994 are: 68 percent Satisfactory, 23 percent Conditional, and 9 percent Unsatisfactory.

While FHWA would prefer that all follow-up compliance reviews would result in a Satisfactory rating, we recognize that a certain portion of the industry will always be slow to accept the regulatory constraints and will operate unsafely. We continue to examine our processes to identify the problem carriers for compliance reviews, and develop methods to ensure that those carriers which pose the greatest threat to highway safety are reviewed.

Question. In fiscal year 1994, 64 percent of the violations cited on enforcement cases were for violations of Part 395 Hours of Service of Drivers and 22 percent were for violations relating to the qualification of drivers. What has FHWA done to educate the trucking industry to reduce such violations in the future?

Answer. In fiscal year 1995, the percentage of violations for Part 395 Hours of Service of Drivers, cited on enforcement cases, remained consistent at 64 percent. During fiscal year 1995, there was a reduction in the percentage of citations for violations relating to the qualification of drivers, dropping from 22 percent to 17 percent. The FHWA has taken great strides in educating the trucking and bus industries to reduce these types of violations. In fiscal year 1995, the OMC released a *Model Curriculum for Training Motorcoach Drivers*. The intent of producing this curriculum was to design a uniform mechanism that would educate drivers in the requirements of the Federal Motor Carrier Safety Regulations (FMCSR), while allowing motor carriers of passengers to continue with any in-house training that may already be in place. The publication is user-friendly and outlines each section of the regulations, among them, Commercial Driver Licensing, Driver Qualifications, Parts and Accessories, Accident Reduction, Hours of Service, and Inspection and Maintenance. This curriculum contains an Instructor's Guide, a Student Guide, and a complete set of transparency masters.

Under the initiative of Partners for Excellence, the OMC and the trucking industry have worked closely to develop educational and technical assistance materials. Most recently, the OMC published *A Highway Transportation Initiative - Partnerships in Highway Safety.* This package was specifically designed to be a user-friendly explanation and presentation of how to be in compliance with the FMCSR. The OMC has focused the distribution of this publication to smaller motor carriers, and to those presenting a high safety risk. The success of the package and the demand for it from the industry are clearly evident, since industry associations have reproduced the publication using the original camera negatives. This permits an even greater distribution of an excellent product that could not be financed by government beyond the initial target distribution.

Another effort undertaken between the OMC and industry has been the Safety by Cooperative Partnership Education, or SCOPE. This program is designed to assist medium and small size motor carriers in achieving regulatory compliance. To facilitate this end, over 10 one-day SCOPE Safety Seminars have been conducted across the country, with 11 more planned throughout 1996. The seminars as well as the program itself contain educational and technical material covering the areas of Safety Fitness, Financial Responsibility, Applicability, Driver Qualifications, Driving Motor Vehicles, Hours of Service, and Inspection and Maintenance.

SELECTING CARRIERS FOR COMPLIANCE REVIEWS

Question. Since FHWA is no longer attempting to rate or perform compliance reviews on all carriers, how does it prioritize carriers for compliance reviews in order to maximize the coverage with its limited resources?

Answer. The FHWA uses an automated formula to quantitatively identify and prioritize (rank) motor carriers for compliance reviews. A priority score is calculated based upon seven factors derived from motor carrier census information, accidents, roadside inspections, and prior compliance history. The factors considered in calculating the score include: commodity transported, annual fleet mileage, months since last review, vehicle out-of-service rate, driver out-of-service rate, recordable/preventable accident rate, and overall safety fitness rating. The ultimate objective of the prioritization process is to focus FHWA and

State resources toward motor carriers that present the greatest potential operating risk to the motoring public.

The FHWA will continue to make improvements in our carrier selection process. A more performance-based selection formula, Safetstat, has been developed by the Volpe Transportation Systems Center as part of the Commercial Vehicle Information Systems pilot project. The FHWA is considering the possibility of implementing Safetstat on a national basis as its primary means of prioritizing high-risk carriers for compliance reviews.

Question. Carriers are currently selected for compliance reviews based in order of priority by carrier request, complaints, follow-up of enforcement actions, and finally by ranking on the Selective Compliance and Enforcement (SCE) list. How many compliance reviews were performed in fiscal years 1994 and 1995 based on each of these categories?

Answer. FHWA prioritizes its compliance reviews using specific risk assessment criteria in order to maximize its effectiveness in reducing commercial vehicle crashes. The primary reason a carrier receives a compliance review is due to a high "risk ranking" using the SCE criteria (crashes, out-of-service ratios, exposure, commodity transported, and enforcement history), or similar risk assessment techniques currently being piloted (e.g., Top 500/1,000; CVIS/SAFESTAT). The second largest reason for conducting a review is to fulfill the Congressional mandate to investigate jurisdictional, non-frivolous complaints. The third major reason for a review is to conduct follow-ups to enforcement actions to assure that the unacceptable noncompliance has been improved. The requested information follows:

Reason for Review	**FY 1994**	**FY 1995**
SCE Criteria	3,415	1,972
Complaints	1,352	1,061
Enforcement Follow-Up	1,124	1,189
Carrier Request	357	252

Question. FHWA's Selective Compliance and Enforcement system ranks carriers by seven factors in order to select carriers for compliance reviews. Does this system ensure that all high risk carriers are identified and receive compliance reviews?

Answer. Yes, the Selective Compliance and Enforcement system identifies and ranks high-risk motor carriers based upon motor carrier census information , accidents, roadside inspections, and prior compliance history for being targeted to receive compliance reviews (CRs). We are continually working to develop better means to identify high-risk carriers for CRs. One such means is the Safestat identification formula developed through the Commercial Vehicle Identification System pilot program. Safestat uses performance and compliance data from four evaluation areas (accidents, driver, vehicle, and safety management) to rank/score motor carriers. The FHWA is considering the possibility of implementing Safestat on a national basis as its primary means of prioritizing carriers for CRs.

Question. What is the status of the Commercial Vehicle Information System (CVIS) demonstration project in Iowa, Minnesota, Oregon, Colorado and Indiana to determine the feasibility linking commercial motor vehicle registration to the safety fitness of motor carriers?

Answer. The CVIS project is a Congressionally mandated study (Section 4003 of the ISTEA of 1991) to test the feasibility of tying commercial vehicle registration to carrier safety performance. The pilot study began in September 1992 and is in the final stages of development and testing. The pilot is officially scheduled to end January 1997, with a final report to Congress due in March 1997. The following list identifies a number of CVIS key accomplishments resulting from the pilot.

Brought **safety accountability down to the vehicle level** by assigning a USDOT number to every vehicle being registered such that vehicle-specific safety events can be accumulated by the carrier;

Developed a **program of progressively stricter penalties** for carriers that do not improve poor safety performance;

Developed, tested and refined Safestat a performance based algorithm used to **identify and monitor the safety performance of "high risk" carriers;**

Developed and tested the use of **Warning Letters**, as a cheap and effective means of improving safety performance for a large number of carriers;

Develop an **automated CVIS roadside enforcement network** to target vehicles assigned to carriers receiving a Warning Letter (WL) and carriers found to be "at-risk" for additional inspections using plate readers at fixed sites and NLETS to access vehicle registration files

and check carrier safety status at mobile sites;
Developed and tested a **central target file** containing combined carrier/vehicle information on CVIS WL and "at-risk" carriers for increased roadside enforcement.
Developed and tested an **intrastate application of CVIS** (Oregon only);
Developed an **"On-Demand" feature of Safestat** that allows OMC to determine the current safety status of any carrier after significant safety event (e.g. CR or accident);
Required registrants and/or carriers as part of the registration process **to provide current motor carrier information** (MCS-150) to refresh the national motor carrier census;
Identified over **4,000 additional interstate motor carriers** and added them to the OMC census;
Issued Out-of-Service Orders and suspended the registration privileges of three carriers as part of the CVIS pilot; and
Improved data quality by requiring greater use of pen-based computers, and standardized inspection and accident software with error checking features; significantly reduced the data upload time (e.g. 81 days to 42 days for inspection data); and increased the volume of accident data.

Question. What efforts are underway to expand this system?

Answer. OMC hopes to expand the system by adding 2 more States before the end of calendar year 1996. The OMC has had requests from additional States to become pilot States and would like to add more; however, we are unable to expand beyond the two additional States, due to funding constraints. In previous years, CVIS has been appropriated $1.5 million/year to pay for development, equipment purchases, implementation and testing of the program for both the individual pilot State costs and Federal costs (e.g. development and testing of the Safestat algorithm, program modifications to MCMIS and Safetynet).

Question. Can any results or improvements identified in CVIS be implemented on a nationwide basis and when? What are the impediments to expansion?

Answer. Yes. The major CVIS results which could be implemented on a nationwide basis include:
Use of the Safestat prioritization algorithm to identify high-risk carriers;
Use of the Safestat algorithm to monitor the safety performance of high-risk carriers;

Use of the Safestat process to replace the current safety rating methodology;
Linking the carrier responsible for safety to the vehicle being registered at the time of registration via the USDOT number; and
Use of a vehicle specific roadside enforcement system to target high risk carriers for increased inspections.

The FHWA is developing a plan to implement Safestat on a national basis for prioritizing carriers for the compliance review during fiscal year 1997. Also, the FHWA is evaluating the application of Safetstat for safety assessment and Commercial Vehicle Operations purposes, and will establish a timetable, pending the results.

The major impediments to expansion are as follows: Lack of funding for continued program and Automated Data Processing development, equipment, training, travel and technical assistance;
Data quality and currency, especially accident data;
Lack of authority for States to suspend, revoke or deny vehicle registrations on the basis of safety; and
Lack of requirement that States should include the USDOT number of the motor carrier on both the vehicle and the registrant record as part of the International Registration Plan registration process.

ADMINISTRATIVE COST SAVINGS AND FY 1996 BUDGET ISSUES

Question. Please specify exactly how FHWA intends to obtain its share of the $25 million of administrative cost savings required in the 1996 DOT Appropriations Act. In your answer detail the amounts and sources of these savings, being certain to specify amounts derived from reductions in travel, training, salaries from vacant positions, computer support, equipment, etc.

Answer. To achieve its share ($14 million) of the required FY 1996 funding reductions, the FHWA is continuing to implement cost savings initiatives which were begun as part of our streamlining efforts to implement the NPR objectives. The FHWA is taking reductions in a broad range of related administrative areas as we pursue facility consolidation in the field, and reduce our FTE levels in targeted administrative and crosscutting populations. Our cost saving efforts are directed at reducing administrative costs associated with salaries and benefits by limiting the backfilling of positions and we are realizing savings in related travel costs, space and facilities costs, and other administrative areas. This includes $3.8 million savings in salaries and benefits, $.286

thousand in travel, $1.7 million in furnishings and equipment, and $7.3 million in other services and .857 thousand in community, utilities and GSA rent.

Question. How will your ongoing cost savings efforts affect the specific amounts appropriated for each category of FHWA's fiscal year 1996 account? Please provide an FY 1996 appropriated level comparision to estimated FY 1996 levels. Please be certain to elaborate on the expected impacts on each area of research and development and the ITS program.

Answer. The following table provides a comparision of our FY 1996 appropriated level and our estimated FY 1996 level after the FHWA's portion of the administrative cost reductions are applied. The FHWA anticipates that our ongoing cost saving efforts will have minimal affect on the specific amounts appropriated for the FY 1996 R&D and ITS programs. Our cost saving efforts are directed at reducing administrative costs associated with salaries and benefits based on reduced FTE levels in targeted administrative and crosscutting populations and by limiting the backfilling of positions in our field offices. We will also realize savings in related travel costs, space and facilities costs, and other administrative areas. Should our reduction efforts in the administrative areas result in savings which are less than the targeted amount, nominal reductions in R&D funds would be required.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
LIMITATION ON GENERAL OPERATING EXPENSES

	1996 Revised Enacted 1/	1996 Estimate	Difference
Salaries& Benefits	178,836	175,007	-3,829
Travel and transportation of persons	10,099	9,813	-286
Transportation of things*	673	673	0
Communications, utilities and miscellaneous charges	26,563	25,706	-857
Printing and reproduction	92	92	0
Other services	239,966	232,650	-7,316
Supplies and materials	2,204	2,204	0
Equipment	5,227	3,512	-1,715
Administrative Reductions:			
a.) Working Capital Fund	-1,658	-1,658	0
b.) FY 1996 Recission	-756	-756	0
Total obligations	461,246	447,243	-14,003

1/ This column reflects reductions from GOE's enacted base of:

a.) Administrative Expenses	$254,714
b.) Contract Programs	208,946
Subtotal -GOE	$463,660
Less:	
a.) Working Capital Fund	-1,658
b.) FY 1996 Recission	-756
Subtotal -GOE	$461,246
a.) Administrative Reduction	-14,003
Total -GOE*	447,243

* Note including Motor Carrier Safety administrative expenses.

Question. Please identify the amounts of any GOE R&D and ITS funds that are being held in reserve waiting to see if other cost savings can be achieved to realize FHWA's share of the required $25 million administrative cost savings.

Answer. Since actual savings in administrative costs will accrue throughout the year, it was necessary to hold in reserve a portion of our R&D funds at the beginning of the year so that we did not allocate out an amount of General Operating Expense Account funds which was greater than was appropriated. The current reserve amounts to approximately 3 percent of the R&D and ITS funds ($5.2 million). The following table identifies the specific amounts being held in reserve for each R&D and ITS program. As savings in administrative costs are realized the FHWA will release portions of the reserved R&D funds so that they may be obligated.

Program	Appropriated Amount (thousands)	Reserve Amount (thousands)
Highway Research and Develop.	$56,772	$1,933
Safety	($8,768)	($300)
Pavements	($9,247)	($314)
Structures	($13,211)	($450)
Environment	($5,593)	($190)
Right-of-Way	($429)	($14)
Policy	($5,681)	($193)
Planning	($6,069)	($207)
Motor Carrier	($7,774)	($265)
Intelligent Transportation Systems	$109,779	$3,295
Research and Development	$24,479	$833
IVHS Operational Tests	$32,500	$1,106
Commercial Vehicle Operations	($14,500)	($494)

Program	Appropriated Amount (thousands)	Reserve Amount (thousands)
Automated Highway Systems	($14,000)	($477)
IVHS Program & Systems Sup.	($11,300)	($385)
Crash Avoidance Research	($13,000)	($0)
Total	$166,551	$5,228

Question. If a portion of the FY 1996 R&D funds and ITS funds is held in reserve, and then later released, will these sums simply be carried over until 1997 when these moneys can be processed through the 1997 procurement cycle?

Answer. When funds currently held in reserve are released, they will be available for obligation through the FHWA procurement process. It is anticipated that a portion of the reserve will be released during the fourth quarter of this fiscal year. Program activities will not necessarily have to wait for the 1997 procurement cycle. Also, since the funds held in reserve are multi-year funds they are available for obligation until September 30,1998.

Question. Are any FY 1996 GOE or ISTEA funds used to pay for various initiatives of concern to OST, the FHWA Administrator, or the Secretary that were not specifically requested in the FY 1996 budget or explicitly authorized under existing law. If so, please describe.

Answer. The FHWA has not used any funds for itiatives of OST, the FHWA Administrator, or the Secretary that were not requested in the FY 1996 budget or authorized under existing law.

Question. Are you spending any monies on the promotion of educational activities in the Republic of South Africa, summer job programs related to highway research, or possible careers in the transportation field for disadvantaged youth? Please delineate in detail on the scope, nature, and amount of any expenditures that might be related to this inquiry for each of the last two fiscal year 1995 and 1996.

Answer. As included in our work plan with the Republic of South Africa Department of Transport (RSADOT) we are cooperatively working with RSADOT to provide science and technology training to secondary South African students through the use of TRAC packs (computer based educational packages). The TRAC Program was developed in the U.S. cooperatively with the American Association of State Highway and Transportation Officials (AASHTO) to raise the interest of high school students in science and technology leading to careers in transportation engineering. No FHWA funds were expended on this project in fiscal year 1994 and an estimated total of $50,000 was expended in fiscal years 1995/96.

Question. The Committee's reprogramming guidelines state that Congressional approval is required for funding shifts of ten percent or more among programs, projects and activities (PPA). Please compare your actual GOE expenditures for each activity against the amount actually appropriated for fiscal year 1994, 1995 and 1996. Please be certain to indicate the amount of carryover funds in each year for each category for each year described. Please be certain to explain and justify any deviations beyond the ten percent limitation.

Answer. The information is provided in the following charts.

FEDERAL HIGHWAY ADMINISTRATION
ANALYSIS OF R&D ACTIVITIES
FY 1994

FY 1994 No-Year Funds plus FY 1993 Carryover in FY 1994:

Program Areas / Programs:	FY 1994 Enacted	FY 1993 Carryover	FY 1994 Total Available	FY 1994 Obligations	FY 1994 Carryover
Annual funds:					
1. Administrative Expenses	300,381,000	0	300,381,000	-299,863,160	[1]
Contract Programs:					
1. Highway Research and Development	$42,525,000	$10,499,227	$53,024,227	-$44,425,670	$8,598,557
2. Intelligent Vehicle/Highway Systems	90,300,000	58,554,588	148,854,588	-129,161,570	19,693,018
3 Tech Assessment & Deployment	12,000,000	1,570,503	13,570,503	-11,672,760	1,897,743
4 Long-Term Pavement Performance	7,000,000	0	7,000,000	-6,997,866	2,134
5. Local/Rural Tech Assistance Program	500,000	783,282	1,283,282	-698,636	584,646
6 National Highway Institute	4,500,000	101,051	4,601,051	-4,529,339	71,712
7. Minority Business Enterprise	10,000,000	2,217,373	12,217,373	-11,360,769	856,603
8. International Transportation	400,000	26,225	426,225	-165,660	260,564
9. Rehabilitation of Fairbank building	1,250,000	1,832,181	3,082,181	-3,082,181	0
Subtotal - Contract Programs	$168,475,000	$75,584,429	$244,059,429	-$212,094,451	$31,964,978
Total	$468,856,000	$75,584,429	$544,440,429	-$511,957,611	$31,964,978

Carryover of FY 1994 No-Year Funds in FY 1995:

Program Areas / Programs.	FY 1995 Enacted	FY 1994 Carryover	FY 1995 Reductions [2]	FY 1995 Total Available	FY 1995 Obligations	FY 1995 Carryover
1 Highway Research and Development	$0	$8,598,557	$0	$8,598,557	-$5,516,765	$3,081,792
2. Intelligent Vehicle/Highway Systems	0	19,693,018	-13,600,000	6,093,018	-3,630,148	2,462,870
3 Tech Assessment & Deployment	0	1,897,743	0	1,897,743	-1,721,321	176,422
4 Long-Term Pavement Performance	0	2,134	0	2,134	-2,134	0
5 Local/Rural Tech Assistance Program	0	584,646	0	584,646	-129,927	454,719

6 National Highway Institute	0	71,712	0	71,712	229,889	301,601
7. Minority Business Enterprise	0	856,603	0	856,603	-400,203	456,400
8 International Transportation	0	260,564	0	260,564	-94,951	165,614
9 Rehabilitation of Fairbank building	0	0	0	0	122,513	122,513
Total- Contract Programs	$0	$31,984,978	-$13,600,000	$18,384,978	-$11,143,047	$7,221,931

Carryover of FY 1994 No-Year Funds in FY 1996:

Program Areas / Programs.	FY 1996 Enacted	FY 1995 Carryover	FY 1996 Total Available	FY 1996 Obligations [1]	FY 1996 Carryover [1]
1 Highway Research and Development	$0	$3,081,792	$3,081,792	-$1,078,936	$2,002,856
2 Intelligent Vehicle/Highway Systems	0	2,462,870	2,462,870	268,581	2,731,451
3 Tech. Assessment & Deployment	0	176,422	176,422	-5,401	171,021
4 Long-Term Pavement Performance	0	0	0	0	0
5 Local/Rural Tech. Assistance Program	0	454,719	454,719	39,333	494,052
6 National Highway Institute	0	301,601	301,601	-24,383	277,218
7 Minority Business Enterprise	0	456,400	456,400	95,586	551,986
8 International Transportation	0	165,614	165,614	-27,034	138,580
9 Rehabilitation of Fairbank building	0	122,513	122,513	-7,401	115,112
Total	$0	$6,477,404	$6,477,404	-$800,806	$5,676,598

[1] FY 1996 Obligations and Carryover balances are based on 5/30/96 data

[2] This reduction reflects a recission in FY 1995

[3] Administrative expenses are annual funds that are only available for one fiscal year

FEDERAL HIGHWAY ADMINISTRATION
ANALYSIS OF R&D ACTIVITIES
FY 1995

FY 1995 Contract Program Funds in FY 1995:

Program Areas / Programs.	FY 1995 Enacted [1]	FY 1995 Reductions [3]	FY 1995 Total Available	FY 1995 Obligations	FY 1995 Carryover
Annual funds:					
1. Administrative Expenses	307,183,000	-5,880,000	301,303,000	-301,106,459	[4]
Contract Programs:					
1. Highway Research and Development	$55,153,000	-$9,631,000	$45,522,000	-$44,842,727	$679,273
2. Intelligent Vehicle/Highway Systems	114,500,000	-26,700,000	87,800,000	-85,425,730	2,374,270
3 Tech Assessment & Deployment	13,000,000	-1,378,000	11,622,000	-10,526,007	1,095,993
4 Long-Term Pavement Performance	9,000,000	-481,000	8,519,000	-8,519,000	0
5 Local/Rural Tech Assistance Program	3,105,000	-90,000	3,015,000	-2,819,512	195,488
6. National Highway Institute	4,500,000	-131,000	4,369,000	-4,325,239	43,761
7 Minority Business Enterprise	10,000,000	0	10,000,000	-9,964,000	36,000
8. International Transportation	500,000	0	500,000	-332,935	167,065
9 Rehabilitation of Fairbank building	3,000,000	0	3,000,000	-649,363	2,350,637
10. OJT Support Services	5,000,000	-3,000,000	2,000,000	-1,045,540	954,460
11. Technical Assistance for Russia	400,000	0	400,000	-370,056	29,944
Subtotal- Contract Programs	$218,158,000	-$41,411,000	$176,747,000	-$168,820,109	$7,926,891
Total	$525,341,000	-$47,291,000	$478,050,000	-$469,926,568	$7,926,891

Carryover of FY 1995 Contract Progam Funds in FY 1996 :

Program Areas / Programs.	FY 1996 Enacted	FY 1995 Carryover	FY 1996 Total Available	FY 1996 Obligations [2]	FY 1996 Carryover [2]
1 Highway Research and Development	$0	$679,273	$679,273	-$679,273	$0
2 Intelligent Vehicle/Highway Systems	0	2,374,270	2,374,270	-898,610	1,475,660
3. Tech. Assessment & Deployment	0	1,095,993	1,095,993	-813,795	282,198
4 Long-Term Pavement Performance	0	0	0	0	0
5 Local/Rural Tech Assistance Program	0	195,488	195,488	44,336	239,824
6 National Highway Institute	0	43,761	43,761	-43,761	0
7 Minority Business Enterprise	0	36,000	36,000	-36,000	0
8. International Transportation	0	167,065	167,065	-41,677	125,388
9 Rehabilitation of Fairbank building	0	2,350,637	2,350,637	-205,000	2,145,636
10. OJT Support Services	0	954,460	954,460	-383,935	570,525
11. Technical Assistance for Russia	0	29,944	29,944	-29,944	0
Total	$0	$7,926,891	$7,926,891	-$2,391,102	$1,997,683

[1] Contract Program funds enacted in FY 1995 are available for three fiscal years -- FY 1995, 1996, and 1997

[2] FY 1996 Obligations and Carryover balances are based on 5/31/96 data

[3] FY 1995 reductions include Procurement Savings and recession amounts

[4] Administrative expenses are annual funds that are only available for one fiscal year

FEDERAL HIGHWAY ADMINISTRATION
ANALYSIS OF R&D ACTIVITIES
FY 1996

FY 1996 Contract Program Funds in FY 1996:

Program Areas / Programs.	FY 1996 Enacted [1]	FY 1996 Reductions [3]	FY 1996 Total Available	FY 1996 Obligations [2]	FY 1996 Carryover [2]	Current Unobligated Balance [2]
Annual funds:						
1. Administrative Expenses	300,714,000	-7,417,000	293,297,000	-206,767,053	[4]	86,529,947
Contract Programs:						
1 Highway Research and Development	$56,772,000	-$2,803,000	$53,969,000	-$31,587,414	$22,381,586	22,381,586
2 Intelligent Vehicle/Highway Systems	109,779,000	-4,777,000	105,002,000	-41,722,367	63,279,633	63,279,633
3 Tech. Assessment & Deployment	12,622,000	-123,000	12,499,000	-5,737,924	6,761,076	6,761,076
4 Long-Term Pavement Performance	8,739,000	-431,000	8,308,000	-7,591,170	716,830	716,830
5. Local/Rural Tech. Assistance Program	3,015,000	-149,000	2,866,000	-2,731,365	134,635	134,635
6 National Highway Institute	4,369,000	-42,000	4,327,000	-2,366,450	1,960,550	1,960,550
7. Minority Business Enterprise	10,000,000	-494,000	9,506,000	0	9,506,000	9,506,000
8 International Transportation	500,000	-25,000	475,000	-105,991	369,009	369,009
9 Rehabilitation of Fairbank building	0	0	0	0	0	0
10 OJT Support Services	0	0	0	0	0	0
11 Technical Assistance for Russia	400,000	-20,000	380,000	-104,273	275,727	275,727
12 Truck Dynamic Test Facility	750,000	-37,000	713,000	-486,621	226,379	226,379
13 Cost Allocation Study	2,000,000	-99,000	1,901,000	-1,901,000	0	0
Subtotal- Contract Programs	$208,946,000	-$9,000,000	$199,946,000	-$94,334,574	$105,611,426	$105,611,426
Total	$509,660,000	-$16,417,000	$493,243,000	-$301,101,627	$105,611,426	$192,141,373

[1] Contract Program funds enacted in FY 1996 are available for three fiscal years -- FY 1996, 1997, and 1998

[2] FY 1996 Obligations and Carryover balances are based on 5/31/96 data

[3] FY 1996 reductions include Procurement Savings, FY 1996 recission, working capital fund, and administrative reduction

[4] Administrative expenses are annual funds that are only available for one fiscal year.

Question. In a separate table, please be certain to compare your GOE expenditures for each of the last three years to the amounts appropriated for each ITS category of funds specified in the conference report. Please be certain to indicate the amount of carryover funds in each year for each category for each year described. Please be certain to explain and justify any deviations beyond the ten percent limitation.

Answer. The information is provided in the following chart.

FEDERAL HIGHWAY ADMINISTRATION

INTELLIGENT TRANSPORTATION SYSTEMS

ANALYSIS OF FUNDING

GENERAL OPERATING EXPENSES
(DOLLARS IN THOUSANDS)

PROGRAM CATEGORY	UNOBLIG. 9-30-93	FY 1994 AUTHORITY	FY 1994 OBLIG.	UNOBLIG. 9-30-94	FY 1995 AUTHORITY	FY 1995 RESC.	FY 1995 OBLIG.	UNOBLIG. 9-30-95	FY 1996 AUTHORITY	FY 1996 OBLIG.	UNOBLIG. 5-08-96
RESEARCH AND DEVELOPMENT	$4,270	$25,706	$29,976	$367	$35,512	-$3,430	$29,920	$2,529	$36,166	$22,231	$16,464
OPERATIONAL TESTS	27	26,228	19,762	6,491	19,982	-4,000	21,816	657	31,052	131	31,578
COMMERCIAL VEHICLE OPER.	0	13,369	13,369	0	11,565	-1,000	10,055	510	13,750	2,665	11,595
AUTOMATED HWY. SYSTEM	0	0	0	0	8,990		8,990	0	14,000	13,985	15
ADV. TECHNOLOGY APPLIC.	0	12,805	12,805	0	14,466	-4,970	9,496	0	0	0	0
CORRIDORS PROGRAM	0	0	0	14,039	11,000	-24,600	439	0	0	0	0
DEPLOYMENT SUPPORT	0	0	0	0	0		0	0	0	0	0
PROGRAM & SYSTEM SUPPORT	675	11,936	12,305	309	12,985	-2,300	9,490	1,504	10,034	2,986	8,552
SYSTEM ARCHITECTURE	0	238	238	0	0		0	0	0	0	0
CONGESTED CORRIDORS	53,882	0	39,473		0	0	0	0	0	0	0
MODEL DEPLOYMENT	0	0	0	0	0	0	0	0	0	0	0
EVALUATION	0	0	0	0	0	0	0	0	0	0	0
MAINSTREAMING	0	0	0	0	0	0	0	0	0	0	0
TOTAL	$58,854	$90,300	$127,948	$21,206	$114,500	-$40,300	$90,206	$5,200	$105,002	$41,998	$68,204

NOTE: FY 1996 AMOUNTS EXCLUDE $4.777 IN REDUCTIONS ASSOCIATED WITH SEC. 335 OF P.L. 104-50.

Question. We understand that FHWA spent a considerable amount of time analyzing and planning for its role in the 21st century. FHWA staff apparently prepared a range of documents on this topic. What were the thrust and major conclusions of this work and how are these findings reflected in the FY 1997 budget/request?

Answer. At the request of Mr. Slater, the FHWA Administrator, a series of staff papers focused on what transportation will be like in the year 2020 were prepared by FHWA staff to serve as "road maps" for agency management in planning for the future. They were provided to FHWA senior management last Fall and were the subject of discussion at a meeting in October 1995. These papers will be used in the development of the agency's next Strategic Plan, which is required by the Government Performance and Results Act (GPRA), for the period from 1998 through 2002. Although the plan will cover only a five year time period, it will be based on a vision of the future that extends well beyond 2002. While this is typical of most strategic plans it is particularly critical in the transportation field because of the long lead time between planning and the time when a facility is actually available for public use.

Many of the assumptions about the future are reflected in the 1997 budget, for example, the scarcity of resources to meet transportation needs, and increased reliance on cost-saving technologies. They will have a more specific impact on the preparation of the 1998 budget as we move toward implementing the GPRA through the use of annual Performance Plans tied to budget submission.

INTELLIGENT TRANSPORTATION SYSTEM (ITS)

Question. Please discuss the specific milestones reached or achieved during the past year in each of the different components of the ITS program. Which milestones were not achieved and for what reasons?

Answer. The ITS Joint Program Office has lead the development of a set of program goals and milestones that all participating DOT offices jointly use to manage the program. They are literally maps in time horizons of five and 10 years of the sequence of milestones that must be accomplished to achieve key program goals. The maps also show key interdependencies among the milestones, and they will be used to measure overall program progress and develop key budget priorities each year.

The major milestones for each program area are described briefly below, along with discussion of progress being made:

I. ADVANCED TRAFFIC MANAGEMENT SYSTEMS (ATMS)/ADVANCED TRAFFIC INFORMATION SYSTEMS (ATIS)

For the "Travel Management" element of the program (which includes Advanced Traveler Information Systems/Advanced Traffic Management Systems/Advanced Public Transportation Systems - ATIS/ATMS/APTS), the major near-term milestone will be achieving deployment of the "Intelligent Transportation Infrastructure" needed to support regional multimodal traveler information centers, advanced traffic signal control, freeway management systems, transit management systems, incident management programs, emergency management, electronic fare payments, and electronic toll collection. Deployment of the necessary surveillance and communications infrastructure will permit better operation and management of roadway and transit resources using state-of-the-art technologies and strengthened institutional ties. This core infrastructure will also lay the groundwork for deployment of future ITS services by both the public and private sectors.

Departmental activities to achieve this milestone are focused on model deployment and activities to address training and staffing needs, on overcome the barriers to improved interjurisdictional cooperation, and facilitate better integration of ITS into the local planning process.

We have completed development of a Strategic Training Plan which addresses the need to build professional capacity within the US DOT and our state, local, and private partners. We are also actively developing the series of efforts outlined in the plan dealing with training, professional development, seminars, and other tools. We are moving forward to deliver a set of needed technical assistance efforts which will reach planners, designers, and other implementers responsible for building the ITI.

Over the longer term, the ATMS element of the program is focusing on developing, operationally testing and facilitating deployment of advanced control algorithms and support systems that will make real-time traffic adaptive control a reality and achieve the ultimate benefits of a truly integrated ATMS/ATIS. A key advance is that we expect to take the Real-Time Traffic-Adaptive System (RT-TRACS) to the next stage in FY 1997, with extensive operational testing in a "real-world" environment. In the APTS area, transit properties are making great strides in applying

Automated Vehicle Location (AVL) technologies as part of their fleet management systems and customer information systems are also advancing.

II. ADVANCED COMMERCIAL VEHICLE OPERATIONS

These are the accomplishments within CVO since last quarter:

System Architecture

- Completion of detailed operational concepts for CVO services, ready for pilot testing and then model deployment. The services to be showcased are:
  -Distribution of safety information to computers at the roadside to target high risk carriers.
  -Use of license plate readers at roadside to electronically identify commercial vehicles.
  -Electronic application of inspection data from the roadside and uploading the SAFETYNET
  -Electronic application of credentials by motor carriers
  -Interfacing of state systems to the International Registration Plan (IRP) clearinghouse.
  -Interfacing of state systems to the International Fuel Tax Agreement (IFTA) clearinghouse
  -Electronic clearance at fixed or mobile sites
- Identification of functional requirements and conceptual design alternatives for the National Commercial Vehicle Information Systems Network (CVISN).

- Completed development of a design for the national Safety And Fitness Electronic Records system (SAFER) that will provide historical interstate carrier safety information to roadside inspection stations.

Electronic Clearance

- Finalized baseline user requirements for CVO electronic clearance system design.

- Development of a detailed system design and procurement plan for the application of technologies to automated checks and toll collection and customs and immigration clearance at the Detroit/Port Huron international border crossing, and development of a design for a U.S./Mexico crossing.

- Began pilot phase testing of electronic clearance services at 29 sites in the Advantage I-75 operational test. Over 4,500 commercial vehicles are participating.

- The Help Inc. Prepass system is operational at 8 sites in California and New Mexico, in construction or final test at 11 additional sites in California, New Mexico and Arizona, and in design at 25 additional sites.

- Begin pilot of CVIS (making registration contingent upon the safety record of the motor carrier) in 5 States that will evolve from data received from initial testing of SAFER.

- Greenlight in Oregon has 4 sites operational and plan an additional 13 to be operational by the end of FY 1996.

Automated Roadside Inspection

- Identification and preparation of 124 MCSAP sites for the testing of the initial phase of the SAFER.

- Assessment of three brake inspection technologies for automated roadside inspection and a draft interim report.

HM Incident Response

- Begin operational tests to identify hazardous materials incidents and assist emergency responders (Operation Respond in Houston and Laredo, TX and the NIER project in PA).

III. ADVANCED PUBLIC TRANSIT SYSTEMS (APTS)

The accomplishments in the FTA APTS program within the last year are as follows:

--A draft Five-Year APTS Program Plan has been prepared which includes APTS goals, objectives, description and program management strategy. Reviews are currently underway.

--An inventory of installed and proposed APTS systems in the U.S. was initiated. An APTS benefits document has been prepared and published which outlines the benefits of APTS technologies in terms of reduction in operating costs, potential increases in ridership, improvements in security and responses to emergencies and other benefits.

Research and development

--A National Transit Geographic Information System (GIS) database was created with a verification process initiated for the nation's fixed guideway infrastructure. A national data base of fixed bus route networks was also developed.

Architecture and standards

--The development of a coordinated system architecture for public transportation vehicles has been completed and delivered to FHWA and the Intelligent Transportation System (ITS) Architecture contractors. The architecture has been embodied into the national ITS systems architecture.

Operational Tests

--In Atlanta, MARTA has taken an independent initiative to work with several local banks to allow commercial (VISA) electronic cash cards to be accepted as fare media in the Atlanta subway system. The card will also be used by numerous retail establishments, and will be implemented in time for the Olympics.

--A Washington, D.C. regional fare collection system was developed which would adopt the next generation radio-frequency card technology. The fare media is valid for payment of fees for parking in WMATA controlled parking lots and allows passengers to transfer between bus and rail without having to pay a separate fare.

--Operational test evaluations continued with projects in Denver (Smart Vehicle), Santa Clara County, CA (Smart Paratransit), Houston (Smart Commuter), Northern Virginia (Route Deviation), Seattle (Smart Traveler) and New York City (Transit Information).

--An operational test was initiated in Miami to provide customers with an automated trip planning capability, including real-time on-line route and schedule information.

--An operational test was initiated in Orlando which will develop a transit component for their Passenger Travel Planning System using a Transportation Management Center

Outreach

--FTA has worked closely with the National Transit Institute to create an introductory training course on Geographic Information Systems (GIS). This course will provide transit professionals an opportunity to compare various GIS software platforms for use within their organizations. The course will also be a hands-on demonstration of the many useful applications that GIS is providing transit agencies. Additionally, the course will be available on a national basis and many of the guest instructors will be experts working within the GIS and transit professions.

--An En Route Transit Information Systems report was published which reports on a review and assessment of current efforts to design, develop and implement en-route transit information systems.

IV. ITS COLLISION AVOIDANCE

The NHTSA ITS collision avoidance program has two major goals: facilitation of the development of safety-effective systems and assurance that there is no degradation of safety as ITS systems are incorporated into motor vehicles. During the past year NHTSA has achieved three broad milestones toward reaching these goals. These are the publication of analytically based preliminary performance specifications for the first generation collision avoidance systems. These guidelines, if followed by product designers, would provide safety benefits by helping drivers avoid rear-end; lane change, merge and backup; roadway departure; and intersection crashes. To facilitate the use and acceptance of these specifications by industry, a peer review workshop was held in December 1995.

Input from industry will be used to revise these guidelines when final specifications are published. The agency has also completed development of a new research tool, which will be utilized to gather fundamental baseline data on driver performance. The development of a second tool for gathering baseline data on the vehicle motion environment (i.e., the locations and motions of vehicles relative to the roadway boundaries and each other) is underway. Such data are needed by private sector product designers. The agency has also completed, in cooperation with FHWA and other partners, an evaluation of the impact on safety of the TravTek route-guidance and navigation system. This evaluation is the benchmark for evaluations of the safety impact of future operational tests.

The agency is currently revising the Crash Avoidance Research Strategic Plan, in accordance with congressional direction. In the longer term of three to five years, the agency will be completing the collision avoidance performance specifications for first generation systems. The agency will also have gathered sufficient data from application of new research tools to have a solid basis for development of second-generation systems which integrate performance of several types of collision avoidance systems, in addition to providing for enhanced levels of protection. The agency will also have completed the first set of six cooperative agreements with industrial partners. These partnerships will pave the way toward the type of cooperative arrangements that will help expedite availability of effective advanced collision avoidance systems to the driving public.

V. AUTOMATED HIGHWAY SYSTEM

The first major milestone in the Automated Highway System (AHS) program was the award of the cooperative agreement with the National AHS Consortium on November 8, 1994. The NAHSC delivered Milestone One, Establishment of Performance and Design Objectives, on schedule, on November 9, 1995. This included the AHS System Objectives and Characteristics document, the NAHSC Program Plan and the Master Program Schedule.

The Consortium is responsible for a comprehensive seven-year research, development, and testing program leading to the selection, test, and specification of the optimum AHS system for the Nation. Fundamental to the conduct of the program is the active, ongoing involvement of a broad range of stakeholders to develop a national consensus on this system approach.

Fifty organizations have signed on as associate members. There are five major milestones remaining for the program. These are (1) the 1997 proof-of-technical-feasibility demonstration mandated by ISTEA (1997), (2) development of multiple feasible AHS system concepts (1996), (3) selection of the preferred AHS system configuration (1999), (4) completion of validation testing of a prototype of the preferred configuration (2001), and (5) completion of system documentation (2002) to support the follow-on Operational Test and Evaluation phase of the program.

Question. What are the most pressing research questions which need to be addressed during the next few years?

Answer. There are five primary "unknowns" that define the ITS research horizon.

- First, how will we achieve an integrated approach in deploying the ITS infrastructure? (This question involves issues of architecture training, standards development, motivation to deploy, and cultural change)

- Second, can ITS crash avoidance technologies be safely, reliably, and economically integrated into automobiles and can they deliver on the promise of significant reduction in accidents? (This question involves both the question of where the products are effective and whether they can be delivered to an American market.)

- Third, how do we use advances in vehicle and driver performance sensing and communication to enhance commercial vehicle safety, fleet management, and commercial vehicle regulation efficiency? (This question involves issues of detecting driver impairment and engine function telemetry.)

- Fourth, how does the human respond to this new electronic platform in the infrastructure, in his home and in the vehicle; how do we make it user friendly, safe, and efficient from a human factors perspective.

- And finally, how do we introduce in a systematic, efficient, and acceptable manner, the automation of many driving, operating, and maintenance functions?

Beyond these issues there are shorter term, less unknown research that is, nevertheless, important and will be a part of future research agendas, including model building for predictive capability in traffic operation centers, and further developing our capability to automate our management of traffic and transit operations.

Question. What are some of the key accomplishments that have emanated from the investment in the ITS research and development program and how are these results now being used in the national ITS program?

Answer. We identify five primary accomplishments for the overall program. They include:

- Defined the ITS vision and charted a course to achieve it. The ITS Strategic Plan, Program Plan, and the roadmaps have guided the day-to-day activities of the program from "ideas" and potential that many saw to concrete research and tangible results.

- Launched an aggressive long-term research program that has allowed the U. S. to partially recapture its technological lead, particularly in the areas of crash avoidance and automated highway.

- Tested the viability of numerous technologies and applications. The benefits have been published in *Assessment of ITS Benefits -- Early Results* and have led to the identification of a national deployment strategy.

- Developed Local Plans for the deployment of commercial vehicle and travel management ITS infrastructure the results of which are beginning to be used for deployment.

- Identified a set of "Core" public ITS infrastructure (ITI) to launch national deployment of ITS travel management and commercial vehicle services.

Specific accomplishments in each of the program areas are listed below.

Highlights in Advanced Traffic Management Systems (ATMS) and Advanced Traveler Information Systems (ATIS)-

- Development of signal control strategies which dynamically adapt to changing traffic conditions and better analytic tools for fuel consumption and emissions calculations;
- Development of tools which optimize control of traffic in integrated networks of freeways and arterial streets;
- Development of multi-modal transportation management strategies;
- Completion of a freeway traffic simulation model now in use by practitioners;
- Establishment and acceptance of a protocol that allows traffic control devices manufactured by different manufacturers to communicate with each other;
- Completion of four alternative prototype real-time traffic signal control strategies for comparative testing and evaluation;
- Development of human factors guidelines for in-vehicle displays and controls;
- On-going evaluation of human factors aspects of in-vehicle systems;
- Completion of functional and technical specifications for a deployable in-vehicle signing system;
- Completion of an on-line, operational, real-time simulation capability for testing advanced traffic control strategies;

- Development of functional concepts for dynamically forecasting traffic patterns for use with regional traffic management.

Highlights in Commercial Vehicle Operations (CVO)-

- Completion of a design for the national Carrier Safety Fitness System that will provide historical interstate carrier safety information to roadside inspection stations;
- Establishment of a vehicle-roadside communications standard to enable commercial vehicles to travel nationwide with one transponder and use it for multiple purposes;
- Full scale test of electronic clearance services in the Advantage I-75 project with anticipated participation by 4500 vehicles;
- Implementation of the prototype Commercial Vehicle Information System Network (CVISN) Phase I system for roadside electronic verification in two States;
- Completion of evaluation of advanced brake testing technology devices at the roadside to expedite the truck/bus inspection process and increase the number of annual inspections;
- Completion of the detailed system design for the carrier/vehicle -based Safety System (SAFER) for screening vehicles for inspection.

Highlights in Crash Avoidance Research/Human Factors and Driver Performance-

- Completed evaluation of a prototype Vehicle Motion Environment (VME) data collection system which will now be used in baseline data collection to help evaluate crash avoidance technology;
- Completed evaluation of a prototype human factors data acquisition system and the development of final functional and performance specifications for the system;
- Development of a prototype drowsy driver performance monitoring system and the initiation of human factors testing;
- Completed development of preliminary problem identification analysis using currently available NHTSA crash database which has directed priorities in crash avoidance research and has assisted in evaluating the program;
- Completed development of preliminary performance specifications for collision avoidance countermeasures for rear-end, road-departure, lane-change/merge/backing, and intersection collisions;
- Completed development of guidelines for assessment of impact of visual, audible and tactile cues on driver performance.

Highlights in the Automated Highway System (AHS) Program-

- Establishment of an extensive and in-depth body of knowledge and analysis tools to support system development activities through completion of seventeen AHS Precursor Analyses studies;
- Completion of human factors guidelines on human performance issues to be used in AHS design;
- Completion of evaluation/development efforts in key technology areas such as, vehicle and roadway sensors, vehicle-to-vehicle communications system, and advanced algorithms for vehicle control;
- Identification of a core set of alternative system concepts and configurations; and
- Completion of plans for the 1997 AHS demonstration.

Highlights in Advanced Public Transportation Systems -

- Application of Global Positioning System (GPS) technology to Automatic Vehicle Location (AVL) systems to replace signpost and odometer technologies, coupled with significant increase in the use of AVL systems (in excess of 100 percent) in U.S. transit systems;
- On-going activities to apply human factors research, frequency spectrum requirements/ allocations, multi-modal fare/toll payment smart cards, and map and spatial database requirements to transit systems.

Question. Please summarize the specific challenges that still face the JPO in managing and coordinating the ITS program. What additional steps are you planning to address these challenges?

Answer. The Joint Program Office has achieved a significant level of budgetary monitoring and control within the program including the following:

- Operational tests are now selected based on the overall program strategy by defined criteria and through a formal process.

- A project tracking system is being implemented. Currently all projects are on a database. Changes to cost and schedule are reported on a quarterly basis and subsequently discussed at quarterly program review meetings.

- Program "roadmaps" of milestones have been developed in each program area.

- In 1996, an integrated program spending plan was created against which the program is now tracked. Potential overlap was investigated on a project-by-project basis and detailed project proposals were required for most of the individual line items.

- The Joint Program Office (JPO) signs off on all obligations against ITS funding and are coded on a line-by-line item in the spending plan.

- Progress on delivery of projects are actively reported at individual quarterly program reviews.

The new challenges will include:

- Widening the scope of the program to include the planning/ Federal-Aid program offices.

- Ensuring that the capacity or skill level is created within the modal adminstrations to take on the necessary stewardship for deploying ITS on a national basis.

- Assessing the effectiveness of the program in quatitative terms against the measures of effectiveness that have been established for the program.

Question. Please summarize the specific steps you have taken to improve ITS project selection. What additional steps are you planning?

Answer. Selection of which top-priority ITS project needs should be funded is guided by the series of "roadmaps" which have been developed for major components of the Program. Those road maps for example have moved us from the series of operational tests that were common in the early years of the program to ones emanating from the research programs in crash avoidance, CVO and traffic management.

Our audit and evaluation has made our selection process sharper in seeking proposals that have firm agreements among the partners and many of the institutional relationships already in place -- since in the past those negotiations have been a source of considerable delay.

A formal selection process has been established with the Strategic Planning Group, chaired by the Director of the Joint Program Office making final recommendations and if necessary having potential for appeal to the Management Council, chaired by the U.S. DOT Deputy Secretary.

Question. What return on investment ROI has resulted from the National ITS Program? How do you evaluate the return on investment?

Answer. One way to evaluate ROI for ITS is through analysis of congestion problems and synthesis of benefits information gathered from multiple sources to give estimates of the impact of ITS versus non-ITS solution approaches. The following is an example of such an analysis:

While each city is different, an analysis of 50 metropolitan areas across the country[1] showed that just to stay even with the growth of congestion, we would need to increase achievable throughput by about 30%[2]. The combined population of these cities totals about 125 million, out of a total U. S. population of 250 million[3]. A build-only option would mean adding approximately 4400 new lane miles *every year* (about 1700 miles of freeway lanes and 2700 miles of major arterial lanes)[4]. Right now, we are building about 2/3 of this[5]. Over the next 10 years, the total cost of building the required lane miles will be approximately $125 billion, depending on cost estimates used[6].

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[1] **Urban Roadway Congestion - 1982 - 1992**, Volume 1: Annual Report, September 1995, Texas Transportation Institute, Research Report 1131-7.

[2] From [1], added required new freeway and arterial miles together, yielding 4453 miles multiplied by 10 years, and divided by the total existing freeway and arterial miles (tables 8) for a total of 147,647. The result is 4453*10/147,647 = 30.2%. The annual growth rates were *not* compounded to derive the 10-year figures.

[3] **Journey-To-Work Trends in the United States and its Major Metropolitan Areas 1960 - 1990**, USDOT FHWA, Publication No. FHWA-PL-94-012, November 1993. Used areawide population from Table 3-5.

[4] **Urban Roadway Congestion - 1982 - 1992**, Volume 1: Annual Report, September 1995, Texas Transportation Institute, Research Report 1131-7, table 8. Totaled columns for Additional Annual Lane-Miles needed for Freeways and Principal Arterials needed to maintain 1992 congestion levels. Actual totals were 1748 for freeways and 2705 for arterials

[5] **Urban Roadway Congestion - 1982 - 1992**, Volume 1: Annual Report, September 1995, Texas Transportation Institute, Research Report 1131-7, table 8. Totaled columns on average annual lane-miles added to system, 1988 - 1992 (1170 for freeways, 1757 for principal arterials). Built percentages are 1170/1748 = 66.9% for freeways and 1757/2705 = 65.0% for arterials.

[6] Took lane miles from [1], used three estimates for cost 1) **A Toolbox for Alleviating Traffic Congestion**, ITE, 1989, Table 4.2 for cost, taking Wisconsin as a "typical" value. For new freeways, this gave $2.26 million per lane mile for Texas multiplied by 317.9/119.3, for approximately $6 million per lane mile. Similarly, $0.41 million times 317.9/119.3 yielded approximately $1 million per lane mile for widening a "non-freeway". 2)1991 HPMS Needs Analysis Urban Construction costs for

For the same 50 cities, and over the same 10-year period, ITS technologies can increase achievable throughput by about 20% or about 2/3's of the future requirement[7] at a total cost of $19.3 billion[8]. As a result, the combination of ITS and building lane miles would provide the same required additional throughput at a cost of approximately $50 billion. In other words, by implementing ITS, we can achieve at least a 2:1 cost savings (which is a savings of approximately $65 billion).

Question. What are the purposes and benefits of the monies that have been or will be spent on the ITS traffic management laboratory? How much do you plan to spend on this activity during FY 1997? Please specify both GOE and ISTEA monies.

Answer. The Traffic Management Laboratory (TML) is a facility housed within FHWA to test and evaluate advanced travel managment R&D products and concepts. It can assess the potential benefits, impacts and requirements of these technologies by simulating the operation of an advanced traffic management center in a realistic environment. Many products and concepts that are too complex to fully evaluate in the field can be simulated in the TML. As such, the TML has the potential to facilitate the development of guidelines that have practical application in the deployment of the products being tested. The TML also allows for the development of test protocols for actual field testing.

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widening urban highways. A mid-point was taken between costs in built-up and outlying areas for widening existing facilities per added lane-mile. For freeways, built up costs were $3.683 M and outlying were $2.359 M. $3 M was used. For arterials, built up costs were $2.013M and outlying were $1.394 M. $1.6 M was used. This produced the lowest costs. 3)Using the 1981 Interstate Cost Estimates and adjusting from 1979 dollars to 1994 dollars using the FHWA Bid Price Index, an urban freeway mile was estimated to cost $41.66 M for new construction. For this estimate, a freeway was assumed to contain 6 lanes and a cost of $7 M per lane mile was used. The ITE estimate for arterial expansion was also used. This produced the highest costs.

[7] Based on **Intelligent Transportation Infrastructure Benefits: Expected and Experienced**, The MITRE Corporation, January 1996, page 3, table 1

[8] Based on HTV paper on cost of deploying ITS. Use the costs for advanced traffic management and traveler information systems in 38 large cities, @ $420 million per city, and 12 medium cities @ $280 million per city, yielding approximately $19.3 billion. The cities used in the TTI study [1] were categorized as large if they had population of over 750,000 and medium with 200,000 - 750,000, as suggested in the HTV study. The remainder were considered to be medium sized.

Recently, the TML was applied to the testing and evaluation of geometric and traffic control designs. In this instance, use of the TML enabled one State DOT to select a transportation improvement alternative which saved them $14 million in right-of-way costs alone. During FY 97 it is anticipated that $1,750,000 of GOE monies will be spent on the continuing development and operation of the TML facility. Total funding for this effort to date is on the order of $8.6 million dollars.

Question. In detail, please breakout the purposes, amounts, and uses of the TFHRC support/overhead expenses that are included in the ITS budget. Exactly how are these funds used in FY 1996 and how will they be used in fiscal year 1997?

Answer. The FHWA's R&T programs typically share proportionately in expenses associated with crosscutting efforts benefiting the overall R&T program, including support for the Transportation Research Board (TRB), and the Small Business Innovation Research (SBIR) program. Below are the items and associated expenses (in thousands of dollars) for FY 1996 and FY 1997:

	1996 Estimate	1997 Estimate
TRB Correlation Services	2,694	2,800
SBIR Program	4,818	6,540
R&T Report Center	300	325
ADP Support Services	1,736	1,910
Editorial Support Services	552	580
Total	$9,900	$12,155

The ITS R&D program contributed $4.7 million in FY 1996, and its estimated contribution is $4.1 million for FY 1997.

*TRB Correlation Services*CThe TRB's total expenditures for their fiscal year ending June 30, 1995 were $37.4 million. In addition to support from FHWA, the TRB receives grants, contracts, and contributions from other DOT operating administrations, the U.S. Army Corps of Engineers, State highway and transportation departments, and several associations and foundations. The Environmental Protection Agency also became a sponsor in October 1995.

Of the $37.4 million, $22.7 million was spent on Cooperative Research Programs --the National Cooperative Highway Research Program ($14.2 million) and the Transit Cooperative Research Program ($8.5 million). The other $14.7 million was spent on technical activities, special continuing programs, and other studies, conferences and workshops. Technical activities include field visits to State highway and transportation departments, committee activities, the annual meeting and publications, and the Transportation Research Information Service (TRIS). Special continuing programs include TRB's Strategic Highway Research Program (SHRP) activities, the Innovations Deserving Exploratory Analysis (IDEA) program, the Research and Technology Coordination Committee (RTCC), and graduate research awards.

TRB Technical Committees and Publications—The TRB maintains standing committees in subject areas of interest to the FHWA. The committees promote the exchange of technical research information, advance the state-of-the-art in their respective specialized field, and identify research needs. The Committees also sponsor technical workshops and conferences.

TRB Annual Meeting—The TRB conducts an annual meeting in Washington, D.C., as a forum to review and discuss the results of highway transportation research. Approximately 7,200 people from the United States and around the world participate in the 5-day conference, involving over 700 technical sessions and committee meetings. About 75 percent of the sessions and meetings are highway related. In conjunction with the meeting, the TRB provides FHWA with display areas and meeting facilities. The TRB also registers all FHWA employees attending the meeting and provides copies of all highway related papers.

TRB's Field Visit Program—Each year, the TRB staff members visit every State highway and transportation department, many transit agencies, other modal agencies and universities, and private industry. During these visits the TRB learns about the problems facing the organizations and passes on information pertinent to the solution of these problems; learns of research activities in progress or planned and informs the visited organization of ongoing similar activities to avoid duplication; and identifies new methods or procedures that might have application elsewhere. Although other information sharing exists, such as publications and electronic services, one-on-one discussions during these field visits explore areas of mutual interest and identify innovative or experimental work that will not be published for wide dissemination, yet are worth bringing to the attention of others. The TRB summarizes and distributes the results of its field visit program to the States, FHWA, and other interested parties.

TRIS—The TRB maintains a bibliographic database that contains citations and abstracts for research literature published in the transportation field and related disciplines. Transportation Research Information Service (TRIS) personnel also process summaries of research projects in progress being conducted by organizations throughout the United States. The TRB provides these TRIS support services as part of its overall agreement with FHWA.

RTCC—The RTCC is composed of 15-20 members selected from among researchers, administrators, research users and practitioners from the public, private and academic sectors. The RTCC assists the FHWA by identifying gaps in research, exploring ways to increase State, local and private sector participation in highway research, addressing issues related to the implementation of research results, identifying areas of duplication, and providing a mechanism for gathering research needs. Under the auspices of the RTCC, the TRB prepared Special Report 244, *Highway Research: Current Programs and Future Directions*. The report provides an overview of our Nation's R&T programs and activities as a basis for exploring opportunities to redirect efforts toward important issues or opportunities that might otherwise be neglected.

NCHRP-IDEA Program—The IDEA program solicits projects with the potential to produce significant technological improvements in the highway community from individuals, public and private institutions, and small and large businesses. Proposals are evaluated by a technical committee and contracts in the amount of $50,000-100,000 are awarded, about 10 projects annually. Awards have included studies of new materials for improved durability, road crew portable laser warning system, laser removal of paint markings on highway surfaces, and unreinforced centrally prestressed concrete columns. The FHWA contributes 75% of the expenses for the IDEA program, and the States contribute 25%.

The IDEA program under the National Cooperative Highway Research (NCHRP) is funded through the FHWA agreement with TRB for correlation services under the FHWA management and coordination expenses. The TRB administers two other IDEA programs, the Intelligent Transportation Systems (ITS) IDEA program and the Transit IDEA program. The FHWA supports the ITS IDEA program using ITS research and development funds. The Federal Transit Administration support the Transit IDEA program under the Transit Cooperative Research Program (TCRP).

SBIR Program—The Small Business Research and Development Act (PL 102-564) requires all Federal agencies with a Research and Development budget in excess of $100 million to participate in the SBIR program. The purpose of the program is to stimulate technological innovation and use small businesses to develop and commercialize technical innovations. The SBIR program is supported through a set aside based on research, development and technology funds spent on extramural research, for example, on research conducted by non-Federal entities. The legislatively-mandated SBIR set aside was 1.5 percent in FY 1994, 2.0 percent in FY 1995 and FY 1996, and will be 2.5 percent in FY 1997. The research portion of the State Planning Research (SPR) funds expended by States constitutes extramural research using Federal research funds under the SBIR program. About 30 percent of FHWA's annual assessment for the SBIR program is associated with the SPR program; FHWA pays the SBIR assessment in full from the R&T programmatic funds without drawing any support from the SPR program.

Since FY 1989 the FHWA has funded 48 Phase I and 28 Phase II contracts under the SBIR program. Successful projects have resulted in the development of a mobile device to measure the reflectivity of pavement markings, consolidation equipment for concrete paving operations, an infrared vehicle detector, a composite material energy absorbing guard rail end treatment, intermodal transportation tools, and a neural network vehicle detection and classification system.

R&T Report Center—The R&T report center serves the FHWA, other transportation agencies, and the public by distributing the FHWA's R&T publications and reports. The R&T report center stocks over 3,000 publications, audio visual items, training courses and other materials for the FHWA R&T program. The R&T report center also assembles and ships National Highway Institute (NHI) course materials, enters technical material to the National Technical Information Service (NTIS), operates an audio visual lending service for highway related materials and maintains the R&T report inventory system. Annually, the report center distributes materials for approximately 200 NHI training courses, and fills over 5,400 requests for R&T publications and materials. This involves shipping over 307,000 items.

ADP Support Services—Computer services are provided to R&T staff at the TFHRC for research and program analysis, as well as facility operations. About 15 years ago, FHWA issued a single contract to provide all computer support services for the TFHRC;

before then, each office at TFHRC was contracting for these support services. By issuing a single contract, FHWA minimizes the costs associated with administrating a contract and is able to attract and keep competent contract personnel.

Approximately 50 percent of the contract effort could be classified as direct research and development rather than administrative functions. Research and program analysis includes modeling and simulation applications for structural research, traffic flow, vehicle dynamics, materials testing, accident analysis, and others. It provides information systems development and support for management and administrative functions, data acquisition and statistical analysis and support of field and experimental data, and model testing for verification and validation.

Facility operations include the operation and administration of a local area network (LAN), remote batch processing and interactive time-sharing with internal and external mainframe installations, data and system security, and system access and technical assistance to LAN users.

Editorial Support Services—The publications staff provides editorial; electronic and print publishing; and conference services to the Office of the Associate Administrator for Research and Development and the FHWA's R&T program. The staff publishes over 200 technical documents annually. Designed to communicate research findings and results, these documents include research reports, technical summaries and briefs, informational brochures, and laboratory profiles.

The staff publishes the quarterly magazine *Public Roads,* which features developments in Federal Highway policies, programs, and research and technology. Approximately 6,000 copies are distributed among subscribers, including Departmental employees, the U.S. Government Printing Office (for depository distribution and sales), the Library of Congress, and general distribution. The staff also prepares and distributes a monthly newsletter, *The Research & Technology Transporter.* The *Transporter* transmits brief articles on highway research, development, and technology accomplishments under FHWA's Research & Technology Program to FHWA offices, State DOT's, colleges and universities, Local Technical Assistance Program centers, international associations, other Federal government agencies, and the NTIS, a distribution of roughly 3,000 entities. The staff also publishes *Caminos,* a quarterly newsletter produced in Spanish and English to update technology transfer centers in

Central and South America on R&T developments. Approximately 3,000 copies are distributed to this audience of universities and colleges and international departments of transportation. The publication staff also designs and edits vue-graphs, slides, and other presentation materials and responds to requests for research and other inquiries.

The FHWA believes the activities supported through these expenses are critical to the success and the effectiveness of the R&T program. In 1996, the FHWA's legislatively-mandated SBIR contribution was $4.8 million, nearly half of the $9.9 million of the expenses for these crosscutting activities; SBIR funds are used to carry out research and technology development. The FHWA's support ($2.5 million) for TRB is the second major cost item included in these administrative expenses. The TRB uses these funds to carry out a comprehensive program for advancing transportation R&T among State and local governments, as well as the private sector.

Question. Were any ITS funds siphoned off during FY 1995 or FY 1996 for use by the Director for Technology Deployment or for other FHWA purposes? If so, please describe the amounts and the purposes in detail.

Answer. No fiscal year 1995 ITS funds were utilized by the Director for Technology Deployment nor does the Fiscal Year 1996 ITS spending plan include any funds to be used by the Director for Technology or other FHWA functions. However, ITS did fund ($172,000) a contract for OST's Office of Radionavigation and Positioning staff in FY 1995. ITS also provided $2.5 million to the Minitech Corporation in New York during FY 1995 which, according to our information was an OST initiative.

In Fiscal Year 1995, $40.3 million of General Operating Expenses (GOE) funds originally made available for ITS projects was rescinded and $2 million was utilized to fund early retirement "buy-out" payments for FHWA employees. Also, $4.777 million of funds made available in the GOE account for ITS projects in FY 1996 has been withheld from obligation for possible use in carrying out the provisions of Section 335 of P.L. 104-50.

Question. Please explain how you are coordinating your push towards deployment of ITS systems with your support of priority corridors.

Answer. The Department has envisioned the ITS as a complete system of related and integrated components and services that are designed to reduce congestion, provide greater mobility, and enhance travel safety. In developing a national architecture, the Department determined that the following nine components can be a part of a complete ITS: Traffic Signal Control Systems, Freeway Management Systems, Transit Management Systems, Incident Management Programs, Electronic Toll Collection, Electronic Fare Payment Systems, Multimodal Traveler Information Centers, Emergency Management Systems, and Railroad Grade Crossings.

While elements of this infrastructure could be deployed separately for individual functions, if deployment is combined and integrated it will open completely new dimensions of congestion management control. The value of systematic, integrated deployment with a common national architecture and common national standards greatly exceeds the individual "fix-it" benefit of the component technologies.

The creation of the priority corridors program by ISTEA established a mechanism for nationwide deployment of ITS technologies and services. A comprehensive program of research and development, operational testing, and early deployment initiatives has been carried out to ensure that deployed systems will be integrated and provide safe, efficient and effective means of relieving congestion and air quality problems. The priority corridors have incorporated various components of the ITS and have demonstrated the benefits of an integrated and coordinated system.

Question. Did FHWA personnel consult with anyone at ITS America on the FY 1997 budget proposal before it was submitted to OST or OMB? At which stage of the budget process did consultation occur? If no consultation was held, why not? Do you think it would be appropriate given the role of this organization as a Federal advisory committee?

Answer. Because the role of ITS America (ITSA) is as a Federal advisory committee, FHWA personnel consulted over a year ago with ITSA on methods by which it could interact with FHWA in the creation of its Fiscal Year budgets. FHWA recommended that ITSA submit an annual "Program Advice Memorandum" containing "Program Advice Recommendations" to the ITS Joint Program Office (JPO). The first Program Advice Memorandum dated February 15, 1996, contained seven specific recommendations with multiple sub-recommendations for 1996. FHWA reviewed these recommendations. In April 1996, at the ITSA Annual Meeting in Houston, the ITS JPO reported back to the ITSA Coordinating Council relevant ITS Program actions to date and further actions planned for each recommendation and related sub-recommendation. Because this mechanism just began in February 1996, it did not impact the formulation of the FY 1997 Budget proposal. However, it will be helpful in implementing the FY 1997 Budget, and has already influenced the FY 1998 budget proposal. Copies of ITSA's Program Advice Memorandum were provided to assist those who are currently formulating the FY 1998 ITS Program budget request.

Also, among the most important influences that ITSA has on budget formulations, is the technical committee structure led by ITSA and supported by technical experts among DOT modal administrations as well as from other public and private sector organizations. In some instances, those committees have provided comprehensive "peer reviews" of ongoing and planned programs of research. Those results will be reflected in the implementation of the FY 1997 Budget. In summary, FHWA clearly recognizes the value of ITSA as an advisor in the formulation of its ITS program budgets, and uses ITSA's expertise in forms of written advice and regular contact through participation in multiple technical committees sponsored by ITSA.

Question. How are you closing the gap between what is possible using ITS and what is the current state of practice.

Answer. An integral part of any effort aimed at closing the gap between the current practice and what can be done is to educate the professionals involved in the possibilities. Part of this education effort is the Intelligent Transportation System (ITS) Professional Capacity Building Program. This program develops professional awareness of integrated Intelligent Transportation Infrastructure (ITI) through videos, seminars, short courses and demonstration projects.

The Department has envisioned the ITS as a complete system of related and integrated ITI components and services that are designed to reduce congestion, provide greater mobility, and enhance travel safety. In developing a national architecture, the Department determined that the following nine components can be a part of a complete integrated ITI: Traffic Signal Control Systems, Freeway Management Systems, Transit Management Systems, Incident Management Programs, Electronic Toll Collection, Electronic Fare Payment Systems, Multi-modal Traveler Information Centers, Emergency Management Systems, and Railroad Grade Crossings.

A comprehensive program of research and development, operational testing, and early deployment initiatives has been carried out to ensure that deployed systems will be integrated and provide safe, efficient and effective means of relieving congestion and air quality problems.

Question. When products result from the ATMS Research and Development Program, how do you ensure that there is sufficient field testing to gain acceptance by State and local users of the new technology?

Answer. The development of ATMS products begins in the Research and Development phase. Framing the research questions involves many stakeholders from the research and practioneer communities, including State and local users. Then through research project steering committees which also include State and local users, we assure that the nature and characteristics of the product remain on-target to meet their needs. Finally research products, after careful laboratory testing, are moved to the field for "real-world" testing under the most user-defined set of critical circumstances.

At the conclusion of the research phase of the product development, the product continues to undergo field operational tests in conjunction with our partners in the States and local governments. In this way, we continue to use the long-standing relationships built up with organizations such as the American Association of State Highway and Transportation Officials (AASHTO), to verify the product is adaptable to their needs and that they are willing to use the product. Then they become the advocates, willing to promote the product to the ultimate users and gain wide- spread implementation and deployment.

Question. How much of the ITS funds allocated from the GOE account were transferred to FTA for the conduct of APTS projects. Please specify the purposes and amounts of funds transferred in FY 1995, FY 1996, and planned for FY 1997.

Answer. In FY 1995 and FY1996 the APTS program was funded under the FTA R&D budget. However, in FY1996 the FTA budget was reduced significantly to the point that the ITS Joint Program Office elected to provide support to the FTA research effort. To this end, $ 1.523 million was transferred to FTA to provide the following:

1. R&D for Rural Traveler Information System -- $0.24 million
   Electronic Payment Systems -- $0.15 million
   Evaluation of Selected Operational Tests -- $0.3 million.

2. Operational Test of a Parking/Signage System -- $0.333 million.
3. Mainstreaming of APTS Technologies -- $0.1 million.
4. Technical Assistance on the Smart Card program -- $0.15 million.
5. APTS Deployment Training -- $0.1 million.
6. Program support -- $0.15 million.

In FY 1997, the FTA APTS program was integrated into the ITS overall program from a budgetary standpoint The 1997 ITS budget request includes $4.1 million for the FTA APTS program. The funds have been requested for the following activities:

1. R&D $0.525 million
2. Standards $0.05 million
3. Operational Tests $2.575 million
4. Mainstreaming $0.375 million
5. Deployment Technical Assistance $0.575 million

Question. How are you mainstreaming investment in ITS into other highway financing actitivies?

Answer. We have begun a process of educating the FHWA and FTA field staff about ITI, the architecture and some simple checks for "buying smart." A "toolbox" is being developed for State and local officials to provide more comprehensive information. Planning guidelines to help incorporate the ITI into the traditional planning process are currently in draft stage and a simple guide to using the architecture for the ITI has just recently been published and distributed. We have also launched a comprehensive training program for both our field staff and our partners.

We have begun to use the innovative financing program to finance ITS activities. For example, the Missouri Highway and Transportation Department (MHTD) has initiated development of a statewide intelligent transportation system (ITS) to improve safety, decrease congestion and increase transportation system efficiency. The system includes a fiber optic communications network which will serve as the backbone for traffic management and information exchange. The innovative financing tool is flexible matching, the value of the fiber optic communications as part of the MHTD's ITS system will be used in lieu of State funds to match Federal funds on future ITS projects.

Question. How will you promote the use of Intelligent Transportation Systems on the National Highway System?

Answer. As the portion of the surface transportation network which carries the vast majority of vehicle traffic and freight, the ITI will be critical to achieving the vision of the NHS of the 21st century. Many ITI elements already in place such as freeway management systems, traffic signal systems, and incident management programs are all focused on NHS facilities. Virtually all of the ITS deployment planning studies are centered this system. Moreover, the roadside elements of CVISN are focused on the NHS, as are many of the potential rural applications.

An NHS vision and implementation plan is currently being developed by FHWA. It includes performance goals, indicators and strategies focused on protecting the investment in the NHS and enhancing its efficiency through ITS deployment. For example, deployment of the ITI has been identified as a strategy for achieving the "General Outcome Goal" of *acceptable levels of operational performance on the NHS*. Deployment of CVISN has been identified as a strategy for achieving the goal of *reduced barriers to domestic commerce and international trade*. Further, ITI deployment has been identified as an objective in the overall goal of *achieving acceptable levels of intrastructure condition and maintenance.*

This vision and plan will focus the attention of FHWA staff and key State and local partners on the importance of deploying ITS on the NHS. We will support their efforts with an extensive professional capacity building program (training), technical guidance, and assistance as well as facilitating standards setting.

Question. Is it correct that the architecture has shown there is no need for dedicated spectrum except for safety purposes. If so, what are you doing to develop this dedicated spectrum for safety purposes?

Answer. This is correct. The architecture intentionally did not specify particular frequencies to be used for any wireless function. This was to ensure maximum flexibility by the implementers of the architecture and to allow for technology evolution.

Rather, the architecture defines the interfaces and data that needs to be communicated, not the implementation of the communication link.

The architecture did define a public safety communications link between the vehicles and the roadside. This Dedicated Short Range Communications (DSRC) link will support public safety information as well as other ITS functions. Currently, DSRC Services use the 902Mhz to 928Mhz spectrum. However, because there is a proliferation of uses allowed in this band, US DOT has recommended that the spectrum at 5.825Ghz to 9Ghz be designated for co-primary use for DSRC.

The DOT has been working with the Federal Communications Commission (FCC), the National Telecommunications Information Agency (NTIA), the Public Service Wireless Advisory Committee (PSWAC), and private industry to establish the requirements for the designation of this spectrum. The PSWAC draft report is recommending that the FCC grant the co-primary status for DSRC use. The DOT is currently preparing the petition to the FCC for this spectrum.

Question. What remaining issues must still be addressed in the systems architecture? Why is it necessary to maintain a small number of contractors working on systems architecture?

Answer. The remaining issues known as of this writing include: (1) completing the supporting documentation, (2) developing a wider national understanding of, and willingness to use, the architecture, (3) placing the architecture into useful formats for use by widely varying users (i.e. auto manufacturers vs. traffic engineers), (4) providing technical assistance in the use of the architecture, and most important, (5) the development of standards.

The reason for retaining the contractors is because we are planning to maintain the architecture as a living document. Failure to do so would be a failure to capitalize on the government's investment. We anticipate that standards setting, field deployment, and new services will surface needs to change the architecture. For example FHWA and FRA have jointly developed and approved the Highway-Rail Intersection user service which will be added to the architecture in the near future. Equally important, there will be need for expert architectural guidance in the standards setting.

The ITS community has expressed considerable concern about whether and how the architecture would be maintained. The program proposed in the 1997 budget will indicate to the community that the architecture can be the basis for long term investment.

Question. Please breakout in detail the expected uses of the monies requested to advance systems architecture during Fiscal Year 1997.

Answer. As follows:

Deployment/Implementation Support	$ 1,500,000
Architecture Maintenance	1,000,000
Engineering Support	600,000
Intermodal Considerations	400,000
Outreach Program Implementation	1,500,000
	$5,000,000

Funds for Fiscal Year 1997 are ISTEA only, with no GOE funds included.

Question. How much does the FHWA plan to spend during FY 1996 and FY 1997 in completing work or updating on the systems architecture, gaining consensus on the systems architecture, and providing relevant outreach, training and guidance documents. Please delineate a specific spending plan with needs and amounts of each of these activities. Please separate out ISTEA and GOE funds.

Answer. The information is provided in the following chart.

	FY 1996	FY 1997
Architecture Development	$2,159,000	
Deployment/ Implementation Support		$1,500,000
Architecture Maintenance	525,000	1,000,000
Architecture Engineering Support	1,150,000	600,000
Intermodal Architecture Considerations	600,000	400,000
Architecture Outreach Program	200,000	1,500,000
Totals	$4,634,000	$5,000,000

Funds for both fiscal years are ISTEA only.

Question. When the final systems architecture is completed, what challenges will remain?

Answer. The remaining challenges as of this writing include: (1) completing the supporting documentation, (2) developing a wider national understanding of, and willingness to use, the architecture, (3) placing the architecture into useful formats for use by widely varying users (i.e. auto manufacturers vs. traffic engineers), (4) providing technical assistance in the use of the architecture, and most important, and (5) the development of standards.

Question. How will you help the State and local planners use this document? How will you maintain the architecture? How much do you expect to spend on advancing the architecture for each of the next three years? Please breakdown in detail all planned FY 1996 and expected FY 1997 expenses associated with these activities, being certain to specify GOE versus ISTEA allocations for each activity.

Answer. We have planned an outreach program that includes: (1) The development of guideline documents to help the planners and system engineers in the use of the architecture documents. A top level guideline has recently been completed. We propose in the FY 1997 budget developing specific guidance documents tailored to specific audiences. (2) An extensive training program in the use of the architecture is being planned within US DOT for state and regional DOT personnel (3) finally, we are planning to provide direct technical assistance to our model deployment and operational test sites by the architecture teams. We believe this will provide "field test" feedback on the understandability of the architecture and guidance being developed -- as well as on the validity of the architecture.

1997 represents a transition year for the architecture -- from design completion to field testing it and maintaining it. During the next two years of transition, we plan to retain the architects to handle changes and advice on deployment and standards. Based on a record of what is actually required for architecture maintenance/support, we will make a decision on an arrangement which may include a longer-term but lower cost retainer to one or both architects, transitioning the data base to a support contractor, or exploring other private sector approaches with the industry.

In the next three years, the following is planned to be expended in advancing the architecture support:

	FY1996	FY1997
Architecture Development	2,159,000	
Deployment/Implementation Support		1,500,000
Architecture Maintenance	525,000	1,000,000
Architecture Engineering Support	1,150,000	600,000
Intermodal Architecture Considerations	600,000	400,000
Architecture Outreach Progra	200,000	1,500,000
Totals	$4,634,000	$5,000,000

Funds for both fiscal years are ISTEA only.

Anticipated expenditures for architecture in 1998 are $2.9 million. Funds availability in ISTEA and/or GOE is not determined at this time.

Question. Is it correct that roughly $20 million was spent on the National Systems Architecture? In retrospect, was it necessary to invest this large an amount? How many outreach meetings did you hold? Why was it necessary to have so many outreach activities?

Answer. The cost for the architecture development teams' effort in Phase I was $10.4 million and in Phase II was $8.0 million, for a total cost for the teams' effort of $18.4 million. It has been estimated that the total cost of the ITS program in both public and private investment will be on the order of $200 billion. In this context, $18+ million , less than 0.01%, is a very small price for the Federal Government to pay to develop a framework which will substantially reduce the investment risk of both manufacturers and public sector purchasers as well as help achieve the goal of national interoperability.

This is not a DOT nor an FHWA architecture, rather it is a national consensus architecture. The nation's transportation community requested DOT to facilitate the effort which has been done in partnership with ITS America. In order to gain consensus from both the public sector and private sector, numerous outreach meetings have been held. These include 32 formal DOT/architecture team presentations in all FHWA/FTA regions, approximately 20 program area outreach meetings such as CVO, rural, or metropolitan travel management, and approximately 30 meetings/workshops /presentations to various professional State level organizations. In addition there have been presentations at major national and international forums. Without the consensus building process, the architecture investment would have had little value -- its value comes from shared agreement to use it.

Question. Please submit for the record a copy of your latest ITS spending plan for both FY 1996 and FY 1997, showing the use of both GOE and ISTEA monies.

Answer. In the following table we displays the ITS spending plan for fiscal years 1996 and 1997.

FEDERAL HIGHWAY ADMINISTRATION

INTELLIGENT TRANSPORTATION SYSTEMS

ANALYSIS OF FY 1996 SPENDING PLAN VS. FY 1997 BUDGET

	FY 1996			FY 1997		
	GOE	ISTEA	TOTAL	GOE	ISTEA	TOTAL
I. RESEARCH AND DEVELOPMENT	36,169	7,120	43,289	39,188	4,300	43,488
A. TRAFFIC MANAGEMENT & SOFTWARE TOOLS	4,374	0	4,374	4,700	0	4,700
1 Real-Time Traffic Mgmt. & Control	2,256	0	2,256	2,200	0	2,200
a. RT-TRACS 2.0	0		0	1,200		1,200
b. Ramp Metering	500		500	500		500
c. Surface Street Incident Detection	500		500	500		500
d. Eval. of Real-time, Traf. Adaptive Signal Cont.	191		191			0
e. Oper. & Maint. Issues of ATMS	100		100			0
f. Traffic Simulation for 2-lane Roads	0		0			0
g. Databases for Assess. of Op. Tests/Traf. Models	965		965			0
2. Support Systems	2,118	0	2,118	2,500	0	2,500
a. Research & Anal. for ATMS (Oak Ridge)	1,000		1,000	750		750
b. Traffic Mgmt. Lab (TML)	*850*		*850*	*1,750*		*1,750*
c. Field Test of Support Systems for ATMS	250		250			0
d. Traffic Mgmt. Center Integration Issues	7		7			0
e. Models to Simulate IVHS Operations	*11*		*11*			*0*
f. VNTSC (WWW & Internet Distn.))1996 Carryover)	0	0	0			0
g. ANSTEC (Conf. logistics & state/city schol.)(1996 Carryover)	0	0	0			0
B. CRASH AVOIDANCE RESEARCH	13,250	0	13,250	15,400	0	15,400
1 Research Tools and Knowledge Base	2,865	0	2,865	4,500	0	4,500
a. Variable Dynamics Testbed Vehicle	0		0	1,500		1,500
b. Application of Vehicle Motion Env. (VME)	500		500	500		500
c. Application of DASCAR	500		500	500		500
d. Human Factors Research	*365*		*365*	*1,500*		*1,500*
e. Applic. of Analytical Bridging Framework	200		200	500		500
f. Hvy. Veh. Intell. Dynamic Stability Enhanc. Sys.	200		200			0
g. Crash Avoid. R&T Supp.-Comm., Contractors.	300		300			0
h. Quantitative Characterization of VME	50		50			0
i. Driver Feedback Cues	200		200			0
j. Commercial Vehicle Comm. & Power Enhance.	300		300			
k. Sensor Support	250		250			
2. Performance Specifications	4,068	0	4,068	6,000	0	6,000
a. Rear-end Crashes	1,000		1,000	1,500		1,500
b. Intersection Crashes	100		100	1,000		1,000
c. Lane change, Merge & Backing Crashes	1,330		1,330	500		500
d. Roadway Departure Crashes	1,038		1,038	1,500		1,500
e. Drowsy Driver Crashes	300		300	500		500
f. Reduced Visibility Crashes	0		0	1,000		1,000
g. Driver Performance Database	100		100			
h. Enhanced Tech. Forward Lighting Systems	50		50			.
i. Baseline Tech. Assess. Indirect Field of View	150		150			
3 Facilitate Commercial Development	2,367	0	2,367	2,500	0	2,500
a. Intelligent Cruise Control (ICC)	300		300	300		300
b. Fwd. Looking Automotive RADAR Sensor	467		467	300		300
c. Forward Crash Avoidance Systems	300		300	300		300
d. New cooperative agreements	1,000		1,000	1,600		1,600
e. NIST/German Crash Avoid. Coop. Agreement	300		300			0
4 Miscellaneous Support	3,950	0	3,950	2,400	0	2,400
a. Vehicle Research & Test Center (VRTC)	1,000		1,000	650		650
b. Volpe Nat'l. Transp. Sys. Center (VNTSC)	500		500	1,000		1,000
c NHTSA Administrative Support	1,850		1,850	750		750
d IDEA	500		500			0
e. AHS Support	100		100			0
C. ENABLING RESEARCH	5,742	0	5,742	7,665	0	7,665
1 Traffic Surveillance & Technology Development	1,000		1,000	2,000		2,000
2 Electromagnetic Compatability Testing	500		500	500		500
3 Communications Alternatives Testing & Evaluation	0		0	0		0
4 Augmentation of Global Positioning Sys. (GPS)	1,000		1,000	1,000		1,000
5. Human Factors Support	3,242	0	3,242	4,165	0	4,165
a. Tech. & Admin. Services for ITS Human Factors	1,200		1,200	1,200		1,200
b. Driver Performance Display Models	500		500	750		750
c. Computer Aided Design (CAD) System	175		175	1,040		1,040
d. In-Vehicle Information Systems	*300*		*300*	*1,000*		*1,000*
e Anal. of Travelers Preferences for Routing	317		317			0
f ATIS/CVO Design Evolution	100		100			0
g. Requir. for Enhanc. Display of Hwy. Env.	*375*		*375*			*0*
h. Spec. for In-Vehicle Info. Systems (Oakridge)	*200*		*200*			*0*
i. Human factors in AHS	75		75			0
. Traveler Information Effectiveness (APTS)	0		0	175		175

ACTIVITY/PROJECT	FY 1996			FY 1997		
	GOE	ISTEA	TOTAL	GOE	ISTEA	TOTAL
D. RURAL RESEARCH	1,240	1,000	2,240	1,000	0	1,000
1 *Evaluations of Rural Traveler Applications*	*600*		*600*	*0*		*0*
2. Study of Traveler Services in Rural Areas	200		200	500		500
3. Tool Box I	200		200	300		300
4 Rural Traveler Information System	240		240			
5 Western Transportation Institute, Montana ('96 Cong. Earmark)		1,000				
6 Evaluation of Radio/Microwave Safety Warning System				200		200
E. HIGH RISK RESEARCH	0	3,781	3,781	0	4,300	4,300
1 IDEA	0	2,000	2,000		2,500	2,500
2 University of North Dakota ('96 Cong. Earmark)		1,000	1,000			
3. Texas Transportation Institute ('96 Cong. Earmark)		600	600			
4 Research Centers of Excellence		181	181		1,800	1,800
ADVANCED FLEET MGMT RESEARCH (APTS)	0	0	0	350	0	350
F. OTHER R & D	8,060	2,359	10,419	8,070	0	8,070
1 Research Centers of Excellence	2,480	359	2,839	1,270		1,270
2. TFHRC Support/Overhead	4,686		4,686	4,100		4,100
3. Other	294		294	500		500
4 Electronic Payment Systems Research	150		150	0		0
5 Dialog on Transp. Plan./Environ. (U. of Minn.)	250		250	0		0
6 National Transportation Center, Oakdale, NY ('96 Cong. Earmark)		2,000	2,000			0
7 Electronic Support Serv.	200		200	200		200
G. EVALUATION	3,500	0	3,500	4,000	0	4,000
1 Evaluation Support for Operational Tests (Booz-Allen)	1,000		1,000	1,766		1,766
2 Deployment Tracking (Nat Oak Ridge)	500		500	1,234		1,234
3 Policy and Program Evaluation	600		600	1,000		1,000
4 *Modeling of ATMS Benefits*	*0*		*0*			*0*
5 *Develop ITS Planning Models*	*700*		*700*			*0*
6 Macro Investment Analysis (ITSA)	400		400			
7 Eval. of APTS Op. Tests (No. Va., Houston, Seattle, etc.)	300		300			0
II. OPERATIONAL TESTS	28,700	18,578	47,278	128,125	0	128,125
A. ATMS/ATIS/APTS	720	3,096	3,816	14,000	0	14,000
1 Real-time Traffic Adaptive Control (RT-TRACS)	0		0	10,000		10,000
2. Map Database Standards	0		0	4,000		4,000
3 Guidestar ('96 Cong. Earmark)	0	2,000	2,000			0
4 Parking/Signage System	333		333			
5 Contingencies for Ongoing ATMS/ATIS Op. Tests	387	1,096	1,483			0
						0
B. CVO	2,262	10,400	12,662	4,550	0	4,350
1 Automated Compliance Review Program	0		0	1,500		1,500
2. Emissions Verifications	0		0	800		800
3 On-board Safety Diagnostics	0		0	2,250		2,250
4 Advantage I-75	1,024		1,024			
5 Otay Mesa Border Crossing	1,238		1,238			
6 Santa Teresa Border Crossing ('96 Cong. Earmark)		900	900			
7 Nat'l Inst. for Environ. Renewal (NIER) ('96 Cong. Earmark)		2,500	2,500			
8 Oregon Greenlight ('96 Cong. Earmark)		7,000	7,000			
C. AVCSS	1,429	0	1,429	7,000	0	7,000
1 ICC Operational Field Test	0		0	2,000		2,000
2 Auto. Collision Notification (ACN) Oper. Field Test	782		782	1,000		1,000
3 Oper. Field Test of Other Coll. Avoid. (CA) Sys. (Eaton)	647		647	4,000		4,000
D. EVALUATION (OP. TESTS & MODEL DEPL. @ 5%)	1,448	0	1,448	0	0	0
E. MODEL DEPLOYMENT	22,841	5,082	27,923	100,000	0	100,000
1. ADV. TRAVELER INFORMATION SYSTEMS (ATIS)	18,747	5,082	23,829	60,000	0	60,000
a. Support for Regional Traveler Information Sys. Proj.*	18,604	0	18,604	60,000	0	60,000
b. Atlanta Showcase (Fallen Rutledge in 1996)	143		143			0
c. Paralympiad ('96 Cong. Earmark)		1,000	1,000			
d. Va./Md. Capital Beltway		4,000	4,000			0
e. *Contingencies*		*82*	*82*			*0*
2 COMMERCIAL VEHICLE OPERATIONS	4,095	0	4,095	40,000	0	40,000
a. CVISN and Roadside Electronic Verification	3,810		3,810	21,000		21,000
b. Haz. Mat. Incident Resp. (See NIER IV B7)(Sen. earmark)	190		190	18,000		18,000
c. JPO Electronic Access Control (Nassif Bldg.)	95		95	1,000		1,000
APTS	0	0	0	2,575	0	2,575
1 Transit Variable Message Sign Systems			0	400		400
2 Next Generation Kiosk & Visitor Transit Info.			0	750		750
3 Advanced Fare Media				600		
4 Advanced Fleet Mgmt. System			0	825		825

*Includes demonstrations of some combinations of Intermodal Terminal, Tourist Transit and Home/Workplace Info. Systems

ACTIVITY/PROJECT	FY 1996			FY 1997		
	GOE	ISTEA	TOTAL	GOE	ISTEA	TOTAL
III. CVO	13,750	0	13,750	7,750	0	7,750
1. Safer MCSAP Sites (Senate earmark)	4,550	0	4,550	5,100	0	5,100
2. Weight/Size Verification	0	0	0	200	0	200
3. Electronic Credentials	50	0	50	2,450	0	2,450
4. *Identifiers for Roadside Inspection*	*240*		*240*			
5. Intermodal Mobility	250		250			
6. Mexican Driver License	300		300			0
7. CVISN (Senate Earmark – $8 million)	7,200		7,200			0
8. On-board Safety Diagnostics	880		880	0		0
9. WIM Use Maintenance/Guidelines	60		60			
10. International Operations Concept/Design	250		250	0		0
IV. AUTOMATED HIGHWAY SYSTEM	14,000	2,500	16,500	30,700	0	30,700
1. Program Management and Outreach	6,139		6,139	13,500		13,500
2. System Definition, Analysis, and Enabling R&D	5,091		5,091	10,800		10,800
3. Concept Development and Selection	2,770		2,770	6,400		6,400
4. Mitre Support	0		0			0
5. Advance Crash Avoidance for Heavy Vehicles	0	2,500	2,500	0	0	0
V. CORRIDORS PROGRAM	0	42,607	42,607	0	81,700	81,700
A. Priority Corridors	0	33,607	33,607	0	69,400	69,400
1. Unearmarked Priority Corridors	0	23,657	23,657	0	69,400	69,400
a. I-95 Northeast Corridor		4,500	4,500		17,000	17,000
b. Gary-Chicago-Milwaukee Corridor		7,100	7,100		19,100	19,100
c. Houston Corridor		4,057	4,057		14,500	14,500
d. Southern California Corridor		8,000	8,000		18,800	18,800
e. Unspecified		0	0			
2. FY 1996 Earmarked Priority Corridors	0	9,950	9,950	0	0	0
a. I-95 Northeast Corridor		3,500	3,500			0
b. Houston Corridor		2,200	2,200			0
d. TRANSCOM, New York/New Jersey		1,500	1,500			0
e. New York State Thruway		1,500	1,500			0
f. Advanced Railroad/Highway Crossings		1,250	1,250			0
B. Other Corridors	0	9,000	9,000	0	12,300	12,300
1 Unearmarked Other Corridors	0	0	0	0	12,300	12,300
a. Unspecified		0	*0*		*12,300*	*12,300*
2 FY 1996 Earmarked Other Corridors	0	9,000	9,000			
a. I-10, Mobile, Alabama (OT)		3,000	3,000			
b. Syracuse, NY Congestion Management		1,500	1,500			
c. Johnson City, Tennessee		1,500	1,500			0
d. I-675/SR 444/Col. Glenn, Fairborn, Ohio		1,000	1,000			
e. Salt Lake City		2,000	2,000			
3 FY 1995 Earmarked Other Corridors	0	0	0	0	0	0
a. Johnson City, Tennessee		0	0		0	0
VI. ARCHITECTURE AND STANDARDS	0	10,089	10,089	7,050	6,200	13,250
A. ARCHITECTURE		4,634	4,634	0	5,000	5,000
1 Deployment/Implementation Support		2,159	2,159	0	1,500	1,500
2 Architecture Maintenance		525	525	0	1,000	1,000
3 Engineering Support		1,150	1,150	0	600	600
4 Intermodal Considerations		600	600	0	400	400
5 Outreach Program Implementation		200	200	0	1,500	1,500
B. STANDARDS		5,455	5,455	7,050	1,200	8,250
1 Spatial Data Transfer Standard (Navig.)		1,000	1,000	1,000		1,000
2. National Transportation Communications ITS Protocol (NTCIP)		750	750	1,000		1,000
3. National Architecture		2,000	2,000	3,500		3,500
4. CVO Standards (Vehicle)		500	500	500		500
5. Transit Mgmt. Standards Support		0	0	50		50
6. Technical Support (Incl. International)		300	300	0	200	
7. Traffic Mgmt. System Support Standards		405	405	1,000		
8. Dedicated Short Range Communications Test Facility		500	500	0	1,000	

ACTIVITY/PROJECT	FY 1996			FY 1997		
	GOE	ISTEA	TOTAL	GOE	ISTEA	TOTAL
VII. MAINSTREAMING	0	15,588	15,588	880	20,900	21,780
A. CVO	0	2,850	2,850	0	5,850	5,850
1. State, Reg and Nat'l Forms/Activities	0	2,250	2,250		5,000	5,000
2. Border Institutional Activities	0	250	250		600	600
3. Nationwide Strat. & Infra. for HM Incidents	0	0	0		250	250
4 Industry Technical Support	0	150	150			
5. IFTA Organizational Support	0	200	200			
B. ITI CHAMPIONS		800	800		0	0
C. APTS	0	0	0	378	0	378
D. TRAINING	0	2,488	2,488		6,200	6,200
1 Nat'l ITS Training Initiative	0	2,288	2,288		5,000	5,000
2. CVO	0	100	100		1,200	1,200
3. APTS (Develop/conduct workshops on APTS deploy.)	0	100	100	0	0	0
E. PLANNING/PROCESS GUIDANCE (Early Deploy. Plan.)		4,000	4,000		1,000	1,000
F. DEPLOYMENT TECHNICAL ASSISTANCE	0	5,450	5,450	575	7,750	8,325
1. Core Infrastructure Deployment Assistance	*0*	*3,172*	*3,172*		*3,900*	*3,900*
ITI Outreach					*2,000*	*2,000*
2. CVO Outreach (Senate Earmark)	*0*	*250*	*250*		*650*	*650*
3. Misc. Outreach (Exhibits, Publications, etc.)		*500*	*500*		*0*	*0*
4. Core Infrastructure Outreach		*880*	*880*		*0*	*0*
5. Institutional Outreach (Minority) (ITS Consortium)		*500*	*500*		*500*	*500*
6 Legal and Procurement Technical Assistance			0		700	700
7 Shared Resources Workshops		148	148		0	0
8. Tech. Asst. (RFP's issued)(1995 Carryover)	0	0	0			0
Transit Tech. Asst. (APTS)	0	0	0	575		575
VIII. PROGRAM SUPPORT	10,034	0	10,034	10,000	0	10,000
A. ITS America (Incl Pigott, Video, & Comm Study)	2,800		2,800	3,000		3,000
B Mitre Corporation	5,411		5,411	5,500		5,500
C. APTS Technical Asst. (VNTSC)	150		150			
D Mgmt. Info Syst./Proj Tracking Support, etc.	200		200			
E JPL, Proj Tracking, Lockwood, etc (1995 Carryover)	0	0	0			0
F International Support	50		50			
G. Other Support Services	*1,163*		*1,163*	*1,500*		*1,500*
H Support for National Personal Transp. Survey	185		185			
I Technical Assistance	75		75			
IX. CONGRESSIONAL EARMARKS ($40,950 INCLUDED IN APPROPRIATE PROGRAMS ABOVE)						
A. Northeast Corridor		3,500	3,500			0
B. Houston Corridor		2,200	2,200			0
C Paralympiad		1,000	1,000			0
D I-10 Mobile, AL		3,000	3,000			0
E. Va/Md Capital Beltway		4,000	4,000			0
F Santa Teresa Border Crossing, NM		900	900			0
G University of North Dakota		1,000	1,000			0
H University of Texas, El Paso		0	0			0
I. Texas Transportation Institute		600	600			0
J Western Transportation Institute, Montana		1,000	1,000			0
K. Johnson City, Tenn.		1,500	1,500			0
L TRANSCOM, New York/New Jersey		1,500	1,500			0
M Syracuse, NY, congestion-management		1,500	1,500			0
N New York State Thruway		1,500	1,500			0
O National Transportation Center, Oakdale, NY		2,000	2,000			0
P Advanced Railroad/Highway Crossings		1,250	1,250			0
Q Hazardous Materials Safety (NIER)		2,500	2,500			0
R Oregon Greenlight CVO Project		7,000	7,000			0
S. I-675/SR 844/Col. Glenn, Fairborn, Ohio		1,000	1,000			
T Minnesota Guidestar		2,000	2,000			
U Salt Lake City		2,000	2,000			
X. MANAGEMENT CONTINGENCIES	2,352	2,648	5,000			0
XI. FY 1995 CARRY-OVER REQUIREMENTS (INCLUDED IN APPROPRIATE PROGRAM AREAS ABOVE)						
1 VNTSC (WWW & Other Internet Distn.) (R&D)	200	0	200			0
2 ANSTEC (Conference logistics & state/city scholarships)(R&D)	300	0	300			0
3. Tech. Asst. (RFP's issued)(MAINSTREAMING, TECH. ASST.)	75	0	75			0
4 JPL, Proj Tracking, Lockwood, etc (RFP issued)(PROG SUPP.)	525	0	525			0
5. Johnson City, Tennessee (1995 Earmark)(CORRIDORS)	0	3,750	3,750			0
GRAND TOTAL	105,002	98,827	203,829	223,780	113,000	336,780

Question. Why has the American automobile industry been so slow to market many ITS safety systems in their fleet? When can we expect to see automatic cruise controls and lateral and longitudinal collision avoidance systems being installed in American cars?

Answer. It is our understanding that most manufacturers and many suppliers are committing substantial resources to the development of collision avoidance and other safety systems. However, it appears that manufacturers do not yet have systems available that they believe are sufficiently effective and marketable to offer as original equipment. They have also expressed considerable concern over product liability. Based on experience with systems such as air bag restraint systems, antilock brake systems, and automatic traction control systems, it will probably be between 5 and 10 years before automatic cruise control systems and between 10 and 15 years before longitudinal and lateral (lane change/merge and road departure) collision avoidance systems will be available on more than 50 percent of the new vehicles sold in the United States. When the lifespan of vehicles is taken into account, it could be 10 to 20 years before most vehicles on the road would be equipped with these systems. This picture could change if the public demand for these collision avoidance systems increase because of awareness of their potential safety benefits.

Question. Department has complained about the ITS earmarks, stating that some of the earmarked projects would never have been funded or would have received less funding than the appropriated amount. If there were no earmarks during FY 1997 in the ITS account, could we reduce the FY 1997 GOE expenditure for the ITS program by $40 to $50 million?

Answer. No earmarks would not constitute rationale for any reductions in the FY 1997 ITS budget request **The FY 1997 ITS budget was formulated based on the assumption that there would be no Congressional earmarkings.** These Congressional earmarkings would effectively eliminate the possibility of funding a rural program included in our budget estimate. Rural areas account for 80% of the total U.S. road mileage and 40% of the vehicle miles travelled, 60% of all traffic fatalities, and 55% of all work zone fatalities. Without earmarkings our funding could launch a significant set of research and demonstrations of ITS applications aimed at safety and other unique rural needs. Earmarks and other congressionally directed spending from contract authority could eliminate the architecture program, the mainstreaming program and reduce to the legally required minimum the money going to Priority Corridors.

Question. Please breakdown all ISTEA and GOE expenditures (active and planned) for FY 1996 and FY 1997 related to marketing ITS technologies. Be certain to specify all "champion", "outreach", and "mainstreaming" activities.

Answer. To date our efforts have primarily focused on influencing the decisions of public officials to take a systems approach to the purchase and implementation of ITS components dealing with travel management. In the CVO arena, our efforts have been directed at bringing the necessary agencies together at both state and multi-regional levels to begin networking databases and integrating functions. Our efforts can be grouped into the following functions: (1) Training, which currently involves developing curricula in telecommunications, systems integration, and other new skills required for deployment for ITS and delivering the courses; (2) Technology transfer which involves development of guidance materials, developing peer to peer networks, etc.; (3) Facilitating state and regional planning activities, and (4) Outreach activities which involve developing printed materials, exhibits, brochures, and videos. We had initially planned to support champions within regions to act as catalysts to bring agencies together to deal with integrating ITS components. Our field structure has recommended that one of the most meaningful experiences for decision makers to talk to peers who have already made the decision and to actually "see and touch" various ITS installations. We are now in the process of designing a program that meets those objectives -- using the designated 1996 champions funding.

	FY 1996	FY 1996	FY 1997	FY 1997
Description	ISTEA	GOE	ISTEA	GOE
Champions	$0	$500	$0	$0
CVO Outreach and Mainstreaming	2,800	0	5,580	0
Training	2,485	0	6,200	0
Planning & Process Guidance	4,000	0	1,000	
Deployment Technical Assistance	5,450	0	7,750	575
APTS Outreach				375
Totals	$15,285	$20,800	$950	

Question. Please delineate in detail the costs, scope, nature, and results of the ITS user acceptance research that has been completed to date and the research/studies planned for FY 1996. How much do you plan to spend during FY 1997 on these activities?

Answer. US DOT ITS user acceptance research program was initiated to provide information on how ITS services will be used, how they will affect driver and user behavior, how usage may vary among different segments of the population, and what features and pricing are acceptable. This information provides fundamental data on the potential effectiveness of ITS and thus is critical in guiding the research and development effort.

The research program examines the responses to potential ITS products and services of three primary user/consumer groups: the private traveler, public sector transportation agencies, and drivers of long-haul commercial vehicles. The research objective is to collect and analyze data to assess how quickly ITS is likely to be deployed and the factors that will facilitate or impede deployment. FY 1996 funds are $520,000 and planned FY 1997 funds are $280,000.

The commercial driver segment of the user acceptance research was completed in the summer of 1995; baseline studies for the segments on private travelers were completed in April, 1996, and direct research will begin in July; baseline studies of ITI purchase and deployment decisions by public sector transportation agencies were completed in March, 1996, and direct research will begin in July.

One noteworthy finding of the commercial driver study was that drivers who had experience with an ITS product or service through an operational test were much more likely to say that the technologies provided value and that they would rely upon them. This finding suggests that providing drivers with a pre-purchase opportunity to use ITS products will lead to higher rates of purchase and use. Similarly, baseline studies of private travelers indicates that those who have had experience with ITS products are more likely to value the service than those travelers who have had no first-hand experience. The full commercial driver study and the baseline studies of private travelers and public sector transportation agencies are available through the ITS Joint Program Office.

Question. One of the major problems with impaired driving is detection. As police resources are reduced at the state and local level relative to population increases, how could we use ITS technology, such as advanced traffic management systems, to rapidly detect impaired drivers? Are you supporting during FY 1996 any operational tests or research that would accomplish this objective? If yes, when do you expect some results which could be presented to the Subcommittee? If not, would this avenue be worthwhile to pursue?

Answer. We do envision a great deal of future capabilities which will be made possible through advances in detection and flow monitoring technologies, including potential use in detecting impaired driving. For example, machine vision (essentially using software techniques to analyze vehicle movements, which are usually provided by roadside video cameras) could detect certain aberrant behavior such as weaving, speeding, following too closely, and other erratic vehicle maneuvers. However, we do not perceive that the technology for this functionality is sufficiently mature to begin operational tests . We will, however, raise the issue as part of our program planning discussions in coordination with appropriate US DOT agencies such as FHA and NHSTA.

Question. Given the numerous demands for Federal-Aid dollars, how many metropolitan areas do you anticipate would be able and willing to invest in an integrated Intelligent Transportation Infrastructure?

Answer. In the long term, we expect that most of the top 75 metropolitan areas, and many others, will invest in *the components* of the Intelligent Transportation Infrastructure. They will do so as a means of more effectively managing the existing transportation system in the area, but at differing investment levels, depending on the perceived needs and availability of funds. A driving force will be lack of funds -- to do anything other that ITS solutions. The process will be characterized as incremental and evolutionary. State and local governments are already investing substantial sums in ITI-related infrastructure improvements. Nationally, funds for Federal-Aid obligations in five ITI component areas for fiscal years FY91-FY95, shown in the table below, reflect a steady increase in ITI related projects being advanced to the implementation stage.

	FY 1991	FY 1992	FY 1993	FY 1994	FY 1995
Traffic Signal Control Systems (incl. Computerized Systems)	272,801,631.76	317,244,058.92	380,704,078.85	452,151,298.78	494,000,112.21
Freeway Traffic Surveillance and Control Systems	72,478,786.26	153,827,574.15	368,680,215.57	408,677,197.65	503,570,854.94
Motorist Aid System	13,930,195.96	6,989,865.32	22,352,084.80	45,239,999.60	32,100,288.60
Highway Information	13,078,923.29	15,997,416.38	16,513,740.64	20,738,932.13	25432206.01
Rail-Highway Grade Crossing (Sec. 130)	151,273,600.00	162,110,400.00	160,218,600.00	182,685,200.00	150,608,600.00

The risk however is that the deployment show above is carried out in a modally isolated, "stovepiped" fashion. There are not immediate economic or congestion driving force for integration of the system. This is why DOT has placed such high priority on model deployment of integrated sysems. We have been gratified with the strong response to the solicitation as an indication of the level of interest in *integrated* ITI systems.

With the aid of funding provided in FY 1997 and future years, we plan to:

1. Make state and local government officials aware of capabilities and benefits of integrated ITS systems, and

2. Provide training and technical assistance in the planning, design, implementation, operation, and maintenance of ITI systems.

The objective of these efforts will be to convince those officials that investments in *an integrated* ITI is cost effective and it will enable them to engage in an entirely new level of systems management and service to their users.

ITS -- OPERATIONAL TESTS

Question. You are in the process of conducting numerous evaluations of your Operational Test Program. What problems or shortcomings in these tests have you documented?

Answer. Two reports document problems and shortcomings based upon an analysis of 12 operational tests and one privately sponsored test. *IVHS Institutional Issues and Case Studies: Analysis and Lessons Learned* (Report Number DOT-VNTSC-FHWA-94-15, April 1994) is based upon ADVANCE; Advantage I-75; HELP/Crescent; TRANSCOM/TRANSMIT; Travtek, and the private deployment of Westchester County Commuter Central. The following are categories and issues identified across these tests:

Category #1: Organization and Management Issues. Of the four categories of institutional issues, this contained the largest number of institutional issues. The following are the issue types identified and discussed under this category in the referenced report:

Cultural Differences in Public-Private Partnerships

Issues: A fundamental impediment to the smooth accomplishment of a partnership agreement for many of the projects was the stark difference in the ways the partners did busines, particularly between those in the private sector versus those in the public sector.

Lack of Inter-Partner Communications

Issue: The following factors contributed to this problem:

- Negative stereotypes of cultural differences;
- Lack of trust;
- Unclear/Changing definition of goals, roles and responsibilities;
- Imprecise definition of "evaluation;"
- Lack of communication protocols

Lack of Intra-Partner Communications

Issues: Communications problems are greatest in the CVO arena whereby a single state representative is required to represent multiple state agencies.

Management Challenges

Issues: The following are some of the factors that contributed to the problem:

- Evauation planning problems
- Over dependence on unproven technology
- Contract and contractor problems
- Aggressive project schedule
- Size of the polcy committee

Category #2: Regulatory and Legal Issues. Of the four major category of issue types, this category contains issue types that had obvious near and far term implications for the ITS products and services proposed for testing. Regulatory and legal issue types found to be of more immediate concern to partners of operational field tests were those in the critical path of beginning the implementation and test and evaluation phases of the projects.

Unclear Government Accounting Requirements

Issue: Work performed with Federal funding requires the accounting of direct, overhead, and fee expenses incurred by private sector vendors. The private partner insisted on total confidentiality regarding product costs.

Burdensome Administrative Requirements

Issue: The issue of how to administer funding from multiple sources was often a problem.

Concerns Regarding Liability and Insurance

Issue: Who will insure vehicles for collision and liability and for such things as wrong way directions, etc.?

Concerns Over Legality of New Technologies in Moving Vehicles

Issue: How much and what types of information should a driver be allowed to receive without causing a safety hazard due to divided attention taking the driver's eyes off of the road? The issue of multifunction displays in automobiles and the functions that are allowable during driving (e.g., moving map displays and reception of television entertainment programs), will be a growing issue nationwide.

Concerns Regarding Intellectual Property and Proprietary Rights

Issue: This issue stems from the stereotypical view that the results of any endeavor that uses Federal funding will fall in the public domain.

Concerns Over Differing State Regulations Governing CVO Operations

Issue: Partnering states had difficulty reaching agreement on an acceptable regulatory and enforcement protocol for CVO. Differences in scale tolerances, weight limits, and acceptable evidence of truck safety inspections contributed to the problem.

Lack of IVHS Technology Standards

Issue: The lack of technical standards has the potential to become the biggest institutional impediment to the successful commercial deployment of the majority of IVHS projects.

Concerns Regarding Potential Negative Public Reaction

Issue: Concerns regarding public reaction to potential redistribution of congestion-causing traffic to local arterial.

Issue: Concerns regarding public perceptions that IVHS technologies can compromise individual privacy.

Issue: Concerns regarding a lack of data on environmental impacts.

Category #3: Human and Facilities Resources Issues. This category focuses primarily upon people-related issues in response to two simple questions: (1) Do you have enough people? and (2) Are the people qualified to do the work?

Quality and Sufficiency of Partner Leadership

Issue: Two issues were identified in this area: (1) criticality of the program manager role, and (2) lack of partner leadership, authority and continuity.

Quality and Sufficiency of Support Resources

Issue: Lack of quality and sufficiency of Federal/state DOT staff resources.

Issue: Lack of quality and sufficiency of program staff resources

Issue: Lack of quality and sufficiency of contractor support resources.

Category #4: Financial and Market Uncertainty Issues. Of the four categories of institutional issues, this category contains issues which present the greatest diversity in definition as well as risk to deployment of ITS products and services. The following issues are discussed under this category of the report:

Cost Sharing Goals and How They Will be Measured

Issue: How the non-Federal partners apportion the expenses of an operational test is left to the ingenuity of individual partnerships.

Projecting Project Funding Through Deployment

Issue: Program cost and uncertainty about continued Federal support of IVHS programs was seen as a significant impediment to deployment. There is a concern that the Federal Highway Administration (FHWA), after providing funding to initiate the test, will require the states to absorb all future maintenance costs of elements critical to the program.

Market Uncertainty and User Willingness to Pay

Issue: The uncertainty issue is driven by two factors: (1) A realization that in the beginning, IVHS products and services will be expensive, and (2) Lack of information on the value of products and services from the perspective of the market place.

In addition to identifying the above issues, the report also identifies lessons learned and recommendations for improving the performance of other operational field tests and deployments of ITS products and services.

The second report, *Analysis of ITS Operational Tests Findings and Recommendations* (Report Number DOT-VNTSC-FHWA-95-5, September 1995) summarizes the institutional issues and lessons learned from six case studies spanning seven operational tests: the Guidestar Program, (which includes the Genesis and Travlink operational tests), the FAST-TRAC, Houston Smart Commuter, SaFIRES, SmarTraveler, and TravelAid. The issues in this report are similar to those listed above.

Like the first one, this report makes recommendations for improving the performance of future operational tests and deployments of ITS products and services -- the majority of which we are now incorporating in to our selection and contracting processes for future operational tests and into our main streaming process.

Question. What benefits and cost savings have been documented?

Answer. We are already realizing the benefits from deployment of pieces of the Intelligent Transportation Infrastructure. Based upon these benefits, benefits from operational tests, and the use of modeling, these piecemeal benefits can be projected to a larger population of cities that employ the integration of the ITI elements. The following are the expected benefits from elements of the ITI:

Summary of Freeway Management System Benefits

Travel time	Decrease 20% - 48%
Travel speed	Increase 16% - 62%
Freeway capacity	Increase 17% - 25%
Accident rate	Decrease 15% - 50%
Fuel consumption	Decrease fuel used in congestion 41%
Emissions (Detroit study)	Decrease CO emissions 122,000 tons annually Decrease HC emissions 1400 tons annually Decrease NO_x emissions 1200 tons annually

Summary of Traffic Signal Systems Benefits

Travel time	Decrease 8% - 15%
Travel speed	Increase 14% - 22%
Vehicle stops	Decrease 0% - 35%
Delay	Decrease 17% - 37%
Fuel consumption	Decrease 6% - 12%
Emissions	Decrease CO emissions 5% - 13% Decrease HC emissions 4% - 10%

Summary of Incident Management Program Benefits

Incident clearance time	Decrease 8 minutes for stalls
Decrease wrecker response time	5 - 7 minutes
Travel time	Decrease 10% - 42%
Fatalities	Decrease 10% in urban areas

Summary of Traveler Information System Benefits

Travel time	Decrease 17 minutes (20%) in incident conditions Decrease 8% - 20% for equipped vehicles

Fuel consumption	Decrease 6% - 12%
Delay	Decrease up to 1900 vehicle-hours per incident

Summary of Transit Management System Benefits

Travel time	Decrease 15% - 18%
Service reliability	Increase 12% - 23% in on-time performance
Security	Decrease incident response time to as little as one minute
Cost effectiveness	45% annual return on investment

Summary of Electronic Toll Collection System Benefits

Operating expenses	Decrease up to 90%
Capacity	Increase 250%
Fuel consumption	Decrease 6% - 12%
Emissions	Decrease CO emissions 72% per affected mile Decrease HC emissions 83% per affected mile Decrease NO_x emissions 45% per affected mile

Summary of Electronic Fare Payment System Benefits

Patron popularity	Up to 90% usage where available
Fare collection	Increase 3% - 30%
Data collection costs	Decreased $1.5 million - $5 million

More information about these experienced and expected benefits can be obtained from *Intelligent Transportation Infrastructure Benefits: Expected and Experienced* (FHWA-JPO-96-008, January 1996).

The primary focus of the operational tests was to test the viability of ITS technologies and user services. Therefore, more emphasis has been placed upon the technical feasibility and the benefits of the systems being tested than on the cost savings. Nevertheless based on early estimates of the costs associated with implementing the ITI in metropolitan areas, we believe the system has the potential of delivering as much as 2/3s of the mobility capacity needed in congested corridors at less than 1/4 of the cost of traditional building.

The following table summarizes benefits currently documented from several of the operational tests, and those asterisked* are described in further detail after the table:

Field Operational Test	Benefits
ADVANCE	Identified solutions to issues in effective public/private partnering
Advantage MAC	States interested in adopting MACS
	Modeling shows benefits to over-capacity stations
	Fuel consumption tests show measurable fuel savings
AMASCOT	Performance meets audit standards
	More effective use of staff
	Carriers interested in commercial product
ARCTIC	Improved DOT/State Patrol communication
Capital - cellular phone technology used	No disruption of road service for installation or repair
	Orders of magnitude lower in cost than loop-based approaches
	Very high reliability with low maintenance costs
	Secondary use for fleet vehicle management and emergency assistance
	Immediate activation and privatization by cellular service providers
Dynamic Downhill	Escape ramp usage down
FAST-TRAC	Stakeholders perceive congestion reduction
	Simulations indicate benefit during incident
	Safety and flow studies inconclusive
Genesis - uses wide area broadcast to pagers and other devices	Participants value information and change plans based on it
	Was primary means of notification in over 50% of incidents affecting travel
	Participants perceive benefits from travel plan changes
	Integrated with other Guidestar projects
HELP/Crescent	Demonstrated AVI, WIM, and AVC could be integrated to provide automated weigh station bypass

Field Operational Test	**Benefits**
LIDAR Enviro. Mon.	Monitoring performance knowledge
MAYDAY	Standards created through ENTERPRISE
Milwaukee Smart Bus	Not yet fully operational, on-time performance has increased up to 90%
MTA Baltimore Smart Bus	On-time performance on test buses increased 23%
Multi-jurisdiction, Live Aerial Video	Officials report quicker incident surveillance and control strategies
RTD (Denver) Smart Bus	Several incidents whereby criminals were tracked and apprehended through cooperation between RTD and police using bus position location system
Spread Spectrum Signal	17 signals linked to ATSAC
Transmit	Incident detection algorithm in place
Travel Demand Management/Emissions Detection	Demonstrated license plate recognition as more safe and efficient and less costly than manual origin-destination techniques
	Demonstrated Remote Sensing Device technology for informing owners that they has "gross emitting" vehicles led to 54% of those notified getting their cars checked.
TravInfo	Traveler advisory telephone implemented
	Database sharing provides standards
	Unique business relationships
TravLink	All users find value in incident and delay information
	On-line users access real-time bus information regularly
TravTek*	
Trilogy - uses wide-area radio broadcasts to in-vehicle devices	Focus groups, driver logs, and surveys showed significant time savings
	Public interest is high
Voluntary Emission	Interagency cooperation

Travtek - Trav Tek was an optional field test of Advanced Traveler Information Systems (ATIS) and Advanced Traffic Management Systems (ATMS) technologies. Study results showed that the TravTek system was reliable. The distributed information processing system was found to be viable. The system helped drivers save substantial trip planning and travel time. It also was effective in helping drivers avoid congestion. Both visitors and local users used the system frequently and provided a median estimate of the value of the system in a new car of about $1000. The turn-by-turn Guidance Display and Voice Guide were very well received. Visitors and local users used these features for the majority of their trips. The results of field experiments suggest that the Guidance Display and Voice Guide yielded improved driving and navigation performance over navigating to unfamiliar destinations by conventional means. The Safety Study showed that the system was safe and suggested a small safety benefit for a fully deployed system. The Modeling Study findings suggest that a TravTek system would benefit not only system users, but also non-equipped vehicles that share the road with system users. The TravTek operational test was a success. The TravTek evaluation demonstrated that users found the system useful, easy to use, and safe. Field experiments showed that the system reduced trip planning and travel time, and improved driving and navigation performance. System users indicated that they were willing to pay for a system such as the one they drove during the operational test.

Question. Which projects are behind schedule and why?

Answer. In the first quarter of 1995, the JPO commissioned a review of all ITS projects relative to their scope, schedule and budget. We found that with the exception of operational tests, ITS projects were being managed well within those parameters with changes well justified. However, virtually all operational tests had experienced schedule changes. Some quite significant. Our analysis found that schedule changes were in large measure due to unrealistic expectations of all parties concerned in creating the original schedule. FHWA tended to assume that contracts could be signed within the same timeframe as regular federal aid projects, when in fact we were often dealing with new partners (many of whom were private sector) and new procedures were often involved. Negotiations among the local partners took much longer than expected.

Sometimes partners dropped out and had to be replaced. Once contracts and local agreements were signed we encountered delays in negotiating evaluating plans, since some partners (especially earmarks) did not understand that the project was a research effort. These issues accounted for the vast majority of changes to the original schedule expectations.

We have since rebaselined the projects and most are proceeding apace. More importantly, we have incorporated some of the lessons learned into our project selection criteria, schedule development, and the guidance we give to our contract negotiators and partners.

Once the projects are underway we continue to encounter schedule changes that are normal to technology research: technology difficulty or failure, weather problems, software problems, frequency problems, etc. These problems, however, are the very essence of the research effort.

Below we present groups of projects that have encountered project schedule changes by primary cause. Many of these projects are now in operation and all are tracking very close to their rebaselined schedule.

The following operational tests have encountered delays associated with negotiation of contracts, agreements or memoranda of understanding among partnership members:

- Denver, CO Hogback Multi-modal Transfer Center (Denver, CO)
- Herald En-Route Driver Advisory System via AM Subcarrier (CO & IA)
- SCOOT Adaptive Traffic Control System (Anaheim, CA)
- Integrated Ramp Metering/Adaptive Signal Control (Orange Co, CA)
- TRAVINFO (San Francisco, CA)
- Smart Call Box (San Diego, CA)
- Spread Spectrum Radio Traffic Interconnect (Los Angeles, CA)
- Seattle Wide-Area Information for Travelers (Seattle, WA)
- TRAVEL-AID (Seattle, WA)
- Houston Smart Commuter (Houston, TX)

Some operational tests have incurred schedule adjustments to optimize data collection time as they are dependent on seasonal or climatic conditions for test data. The following fall in this category:

- TRAVEL-AID (Seattle, WA)
- TRANSCAL (San Francisco, CA)
- Idaho Storm Warning System (ID)

The following operational tests incurred schedule adjustments resulting from partnership members designated to provide key products deciding to withdraw from the project or modify their participation. These decisions necessitated searches for replacement partners, or rescoping project objectives with regard to evaluated technologies.

- DIRECT (DETROIT, MI) - In-vehicle equipment provider withdrew.
- GENESIS (Minneapolis-St.Paul, MN) - Withdrawal of Personal Communications Device provider required redefinition of phases and objectives.
- CAPITAL: WASHINGTON, D.C. AREA OPERATIONAL TEST - The cellular provider partner decided to use reduced power for cellular users, thus requiring redesign and reconfiguration of test parameters.

In some cases, operational tests have encountered multiple causes resulting in schedule delays. Examples in this category include:

- ADVANCED RURAL TRANSPORTATION INFORMATION AND COORDINATION (MN) - Delays caused by long lead times in obtaining authorization to start because of MOU negotiations. Technically unqualified respondents to requests for proposals required repeating the solicitation.
- IDAHO OUT OF SERVICE VERIFICATION OPERATIONAL TEST (ID) Partnership problems causing delays in securing contractual arrangements satisfactory to all partners and technological challenges resulting from the need to tailor existing technology to meet the needs of the project.

- ADVANTAGE I-75 - This project encountered delays resulting from underperformance of contractors, technical problems with transponders, delays in obtaining waivers for placement of transponders and some infrastructure problems.

Some projects have experienced schedule delays from unique institutional or technological causes.

- WILMINGTON SMART DART (Wilmington, DE) - This project incurred a delay because the stored value card used in the project is the Mastercard "smartcash" card. The resulting legal issues between banks, retail vendors and the credit card company are being resolved.

- North Seattle Advanced Traffic Management System (Seattle, WA) has experienced delays due to software development problems.

FAST-TRAC (MI) has been extended as a result of additional earmarked funding generating increases in scope and duration.

Question. Which (projects) are over their original costs?

Answer. Some projects have requested funds to cover the costs incurred by having to expand the depth of the operational test evaluations necessitated in meeting requirements specified by FHWA in the Mitre Evaluation Guidelines. In most cases, the guidelines had not been published prior to submission of the proposals. The following projects were affected:

- SCOOT Advanced Traffic Control System (Anaheim, CA)

- Idaho Storm Warning System (ID)

- TRANSCAL (CA)

- TRAVINFO

Other operational tests incurring cost adjustments include:

- FAST-TRAC (MI) - Additional funding resulting from earmarked funds.

- Baltimore Smart Vehicle (MD)-Local transit operator decision using section 9 formula funds.

- Atlanta Driver Advisory System (GA)-Evaluation-related.

- GENESIS (MN) - To accommodate adjustments described in # 92 above.

- TRAVTEK (FL) - FHWA requested more extensive evaluation documentation.

Question. Which projects required additional federal funds to the amounts specified in the original cooperative agreements? Why were these funds added?

Answer. As explained in question 268, some operational tests requested funding to cover costs incurred by expanding the depth of evaluations to meet FHWA requirements specified in Mitre Evaluation Guidelines. The projects cited in question 265 fall into this category:

- SCOOT Adaptive Traffic Control System (Anaheim, CA)

- Idaho Storm Warning (ID)

- TRANSCAL (CA)

- TRAVINFO (San Francisco, CA)
  - This project also received a supplemental ($2.3 m) to support design, procurement and two-year operation of the distributed system architecture adopted by TRAVINFO.

- MULTI - JURISDICTIONAL LIVE AERIAL VIDEO SURVEILLANCE SYSTEM II (MD) - Technical modification.

- FAST-TRAC - Successive changes in scope due to annual earmarked funding.

- DIRECT (MI) - Modifications in scope.

- ADVANTAGE I -75 - Modifications in scope during evolution of project. Partially described in question # 94 above.

- Alternate Bus Routing (NJ) - Earmarked funding.

Question. Are any ITS projects not progressing at an acceptable rate? If so, please specify the scope and nature of the challenge and your current plans regarding these projects.

Answer. There are currently no projects meeting this criterion.

Question. What is the status and progress of each of the ITS projects involving grade crossing safety? How much money are you planning to spend in FY 1996 and FY 1997 in this area? Please include GOE and ISTEA monies in your answer.

Answer. There are two ITS projects involving grade crossings. The first project involves the Vehicle Proximity Alert System (VPAS), which is designed to warn drivers of priority vehicles about the presence of approaching trains at rail crossings. The first phase of the project, which required several systems to be tested, has recently been completed. Phase two is expected to start in the Fall of 1996. A test plan has been completed by the Volpe Center. Both the states of Michigan and Washington have expressed an interest in becoming test sites. They are now developing proposals. Approximately $400,000 of the $1,000,060 ISTEA funds allocated to the project in FY 1995 has been spent in FY 1996. The remainder of the funds is expected to be spent in FY 1997.

The second project is a project to support the development of a prototype integrated warning system for use at railroad/highway grade crossings. It is being conducted by the New York DOT under an earmark of $2,625,000, all ISTEA funds appropriated in FY 1995. The first agreement with General Railway Systems, Inc. (GRS) has been approved by FHWA field office and NYSDOT (dated Sept 1995). The agreement between NYSDOT and GRS is being held by the State Comptroller until a State budget is passed (now two months late). This slow down from the state budget perspective has not stopped the project altogether. GRS has begun its work "at risk" until a budget is passed. Concerning the second earmark with GRS, we have already approved a scope of services and the NYSDOT and GRS are developing a budget for this implementation project. The complete workplan should be ready for review shortly. No funds have been spent to date. Approximately $260,000 is expected to be spent in FY 1996 and $1,050,000 is expected to be spent in FY 1997.

Question. What data do you now collect on the use of Federal-Aid dollars to construct ITS projects? How much was spent during FY 1994 and FY 1995 for this purpose? What use is being made of the relevant 100 percent funding provisions in ISTEA?

Answer. The Federal-Aid dollars for four of the major Intelligent Transportation Infrastructure (ITI) components that tracked through FHWA's Fiscal

Management Information System (FMIS). The FMIS is being revised to better record other ITI components such as incident management, the newer traveler information systems, and emergency services. The Federal-Aid funds being tracked through the FMIS represent only a small share of the total Federal, State and local dollars that are used for deployment of the ITI components on the highway, transit, commercial vehicle, rail, and emergency response systems.

	FY 1991	FY 1992	FY 1993	FY 1994	FY 1995
Traffic Signal Control Systems (incl. Computerized Systems)	272,801,631.76	317,244,058.92	380,704,078.85	452,151,298.78	494,000,112.21
Freeway Traffic Surveillance and Control Systems	72,478,786.26	153,827,574.15	368,680,215.57	408,677,197.65	503,570,854.94
Motorist Aid System	13,930,195.96	6,989,865.32	22,352,084.80	45,239,999.60	32,100,288.60
Highway Information	13,078,923.29	15,997,416.38	16,513,740.64	20,738,932.13	25432206.01
Rail-Highway Grade Crossing (Sec. 130)	151,273,600.00	162,110,400.00	160,218,600.00	182,685,200.00	150,608,600.00

The data show that ISTEA Federal-Aid funds are being used to support the deployment of ITI components. The data also show an important increasing trend using Federal-Aid funds to deploy ITI components on arterials and freeways. The trends mirror similar use of other non-Federal funds (e.g. State funds) which are also being applied to support the deployment of these ITI components.

Nearly $1 billion of Federal-Aid funds have been obligated in FY 1995 for traffic signal systems and freeway management systems. This represents about a 18 percent increase over FY 1994 totals for these primary systems and over a 200 percent increase in use of the Federal-Aid funds since FY 1991.

The relevant 100 percent funding made available from 23 U.S.C., Section 120c have been used primarily to support the installation of traffic signal control systems, including bus signal pre-emption, and signal systems at railroad-highway grade crossings. Only a very few States have used 100 percent funds to support freeway management and incident management programs. The data above reflect total Federal-Aid dollars both at the 80 percent and 100 percent levels.

Question. What did you do with the $1,000,000 specified in last year's report to further activities on incident management?

Answer. The FY 1996 ITS spending plan includes line items in excess of the $1.4 million requirement for the following incident management activities:

1. Within the Professional Capacity Building Program, $100,000 has been allocated toward the updating and enhancement of FHWA's Demonstration Project No.86 (DP 86), Relieving Traffic Congestion Through Incident Management. This course continues to be popular among state and local governments interested in improving their ability to respond quickly and effectively to a wide variety of incidents that cause congestion and delay traffic.

2. The development and dissemination of incident management support materials has been identified as a major component of the overall Deployment Technical Assistance program in FY 1996. A total of $411,000 has been reserved for activities such as updating the Freeway Incident Management Handbook, completing a survey of Freeway Service Patrols, completing a Callbox Evaluation Study and continuation of the towing certification program support to the Towing and Recovery Association of America.

3. Funding for continuation of outreach and technical assistance activities by the National Incident Management Coalition is included in the FY 1996 ITS Spending Plan. A total of $253,000 has been allocated for development of educational materials, the conducting of workshops on incident management programs and practices, and the development of a video on incident management programs for medium sized cities. Also included in this effort is partial funding for the American Trucking Association's "Road Watch" program.

4. The FY 1996 ITS Spending Plan for Research and Development includes extensive support to investigate new, advanced methods of traffic surveillance and incident detection. A total of $500,000 has been allocated to the development of advanced systems will make it possible to monitor traffic flow and quickly detect when and where accidents or other incidents occur. Armed with this type of information, local units of government and state transportation departments can respond more quickly to an incident, thereby speeding clearance and the resumption of normal traffic flow.

5. In the commercial vehicle operations area (CVO), the FY 1996 Spending Plan includes $190,000 in earmarked funding for work in Hazardous Materials Incident Response. FHWA, in conjunction with the Federal Railroad Administration (FRA) is using

> this funding to establish and make available a database on hazardous material response procedures to provide fire, police, medical and other incident response professionals with information on how to handle hazardous materials encountered in the course of their work. The primary goal of this effort is to provide guidance and protection to those critical "first responders" who are often in the greatest danger as they try to save lives and clear up traffic accidents and incidents.

Beyond this, several million dollars have been devoted to advancing the ITI through architecture, standards, training, and demonstration. Incident management is a backbone component of the ITI and is always a central focus in this work.

Question. What specific benefits resulted from this investment?

Answer. Incident management has the potential of recapturing half of the capacity lost from incidents and accidents during rush hour on American freeways. Those incidents currently consume 1/3 to 1/2 of rush hour capacity. That is the overall benefit of investment in this program.

This year specifically, we have been able to assist State and local governments in the development of effective incident management programs. Awareness and outreach programs supported through the ITS program are designed to build partnerships and understanding among responding agencies so that all partners can work together toward a mutual goal safe and rapid clearance of highway incidents. These information and assistance programs are being made available to State and local enforcement agencies, local fire and rescue agencies, other local emergency management services agencies, to traffic reporting media, and to the towing and recovery industry through our strong working relationship with the National Incident Management Association. Likewise, our support of the Towing and Recovery Association's certification program has fostered a professional working relationship with that industry. On the research and development side, new surface street incident detection algorithms have been developed that reduce the false alarm rate while simultaneously decreasing the time to detect a valid incident.

Question. In terms of your FY 1997 Budget request, please specify the nature and amounts of any funds (ISTEA and GOE) to be spent on incident management.

Answer. In FY 1997, the Administration's Budget includes funding to support the following incident management activities:

1. Funding in the amount of $510,000 in ISTEA funding is being requested to enhance public and private sector incident management activities through the development of training materials, computer programs for operations and planning activities in incident management and certification programs for the towing industry designed to improve the planning for and the response to incidents, accidents, and other emergency needs within the transportation network.

2. We are requesting $390,000 (ISTEA funds) in FY 1997 for awareness seminars and workshops designed to promote the benefits of effective incident management and emergency response services, technical assistance at the state and local level for the development of individual incident management plans, and support for awareness and prevention programs like the "Road Watch" program.

3. $500,000 (GOE Funds) is being requested for second year of a two year research and development effort on advanced surveillance and incident detection systems for surface streets. This work was begun with funding provided in FY 1996. As noted in our response to a previous question, these systems will provide state and local officials with timely information on the location and type of incident detected. This information will enable local incident management officials to respond with the equipment and personnel necessary to quickly handle the emergency/incident at hand and restore traffic service.

4. $1 million GOE funding is being requested to deploy and showcase exemplary hazardous materials incident response strategies based on pilot tests conducted during FY 1995. Building on the results of the work undertaken through Operation Respond and the National Institute for Environmental Renewal (NIER), this effort is intended to advance nationwide hazardous materials incident response systems that will speed the clean up of HM incidents and protect the health and safety of IM personnel.

Question. If the Committee continued its interest in supporting incident management activities, how would you use any additional funds set aside for this purpose?

Answer. Because incident management is a backbone component of the ITI any further support directed toward demonstrating the electronic integration of emergency response and highway and transit surveillance would contribute enormously to making a sophisticated, integrated incident management program the state of the art rather than the state of the practice. Beyond that, additional funds could be used to enhance Incident Management programs, for example:

1. The Road Watch Program, designed to enlist the help of truck drivers to report incidents and other unsafe conditions to local authorities, would be augmented.

2. Additional funds would also be used to adapt the Wide Area Incident Management Expert System developed for Northern Virginia for use by other States to assist in the coordination of responses from multiple agencies to an incident or accident.

3.* Additional funds would also be used to augment a planned FY 1997 effort to develop incident response training for State DOT personnel. The training highlights exemplary State and Federal policies, related incident response activities and the Incident Command System (ICS) for on-site command and control of response activities. The ICS is used by all fire departments and many police departments. However, for various reasons it has not been adopted by many state DOT organizations. The purpose of this training would be to introduce ICS concepts to State DOT maintenance personnel to more effectively integrate them into ICS coordinated incident response activities.

Question. In Conference Report 104-286, the conferees specified $10,000,000 to initiate at least two different operational tests that evaluate various elements of the systems architecture and to integrate the core infrastructure features. Please specify your plans to implement this directive. How many "model deployments' will it take to convince metro areas and States to use Federal-aid dollars to deploy ITS? What is the amount of ISTEA contract authority likely to be added to this initiative?

Answer. On February 26, 1996, a Federal Register announcement was published jointly by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) seeking public/private partnerships to participate in the metropolitan area Intelligent Transportation Infrastructure (ITI) Model

Deployment initiative. Applications were due on April 30, 1996, and are currently being evaluated against the specific selection criteria published in the Federal Register announcement. It is anticipated that the two or three selected sites will be announced in late July 1996. The goal is to have the systems fully operational by December 1997. In addition to the $10,000,000 specified in Conf. Rept. 104-286, approximately $8,000,000 is available in FY 96 Federal ITS funding to support the metropolitan area model deployment initiative. In fact, $60 million of the Model Deployment line item will be used to complete the funding for these initiatives. No ISTEA funding is anticipated in FY 97.

While it would be desirable to have one or two more sites for greater geographic and community size diversity, we believe that two to three sites will suffice.

The model deployment initiative is in direct support of Operation TimeSaver, announced by Secretary Peña in January 1996 as major initiative to accelerate the deployment of the Intelligent Transportation Infrastructure (ITI). The goal of Operation TimeSaver is to save time and lives through the deployment of the ITI in 75 of the nation's largest metropolitan areas -- not with special funding, but using State, local, and regular Federal-Aid funding sources often in partnership with the private sector.

To reach the goal set by Operation TimeSaver, State and local transportation officials must believe that the ITI is a wise expenditure of increasingly scarce resources. Just as few of us would buy a new home or car without seeing it, we believe that few State and local decisionmakers will actively support deployment of the ITI without seeing a full system in operation. The two or three model deployments will be showcases of the ITI that governors, mayors and other local decisionmakers can visit, see and use. The model deployments will also provide sites for conducting rigorous evaluations of a metropolitan ITI that is fully integrated within the framework of the national systems architecture. These evaluations will provide quantitative benefits to support the expenditure of public funds by State and local governments for the deployment of the ITI to reach the goal of Operation TimeSaver.

Question. In Conference Report 104-286, the Committee included $2,000,000 to the State of Minnesota for the GuideStar. What has been done to further develop this project?

Answer. GuideStar provides overall direction and strategic guidance to the Minnesota Department of Transportation's ITS program, and supports over a dozen individual ITS operational tests and other deployment projects. The GuideStar program has been underway for five years, and can boast numerous accomplishments in furthering the deployment of ITS in Minnesota. Some examples include:

--The **Advanced Parking Information System** in St. Paul-- Officially inaugurated with a kick-off ceremony on February 13, 1996, the system uses sensors in the parking garages, along with directional signs to inform motorists about the number and location of available parking spaces. It is designed to assist visitors who are attending special events at the Civic Center and other nearby attractions. The Advanced Parking Information System is the first of its kind in the country, and is undergoing a one year test and evaluation.

--The **DIVERT** (During Incidents Vehicles Exit to Reduce Travel Time) project in St. Paul -- Also inaugurated on February 13, 1996, DIVERT will provide traffic guidance and control during freeway incidents. Electronic signs will guide drivers around the incident and coordinated signal timing plans along designated streets in downtown St. Paul will manage the diverted traffic to minimize congestion. The diverted traffic is accommodated in a planned fashion, as opposed to randomly flowing through the downtown area. A one-year evaluation of the system is planned.

--An interim report on the evaluation of the **Genesis** operational test has been completed. Genesis is evaluating the use of Personal Communications Devices (PCDs) such as pagers to distribute traveler information. So far, the findings suggest that Genesis participants are changing their travel plans in response to the information received on their pagers. For example, of users who reported that a recent trip had been affected by an incident, almost 70 percent first learned about the incident from Genesis. Eighty percent of the users that changed their travel route because of the incident information thought that the new route was as fast or faster than their originally planned route.

--The **Polaris** project began in July 1995 and will produce a statewide ITS architecture for Minnesota. The effort is using the framework provided by the national ITS architecture to define an integrated system for providing ITS user services throughout the State of Minnesota. The **Mayday Plus** project is a partnership with the Minnesota DOT, the Minnesota State Patrol, and the Mayo Clinic to reduce the response time to rural accidents by enriching the information made available to emergency service providers. "Before" data collection is underway to establish a baseline against which the benefits of the Mayday Plus project can be evaluated.

The **Advanced Rural Transportation Information Coordination (ARCTIC)** project is establishing a centralized communications site for the highway, police and transit agencies to improve response time for accident and road condition emergencies, and to provide real-time transit status and schedule information. Construction of the communications center is complete, and the test is scheduled to start in the late fall of 1996.

Question. In Conference Report 104-286, the conferees directed no more than $2,500,000 of the $11,300,000 provided for program and systems support shall be spent on institutional studies. How much will actually be spent? Please breakout in detail these expenditures and their purposes.

Answer. The Department made available $250,000 for an institutional study of planning and environmental issues which was earmarked to the University of Minnesota. The Department has completed an extensive set of institutional studies and is in the process of summarizing those results and making them available through our training and mainstreaming efforts.

Question. Please delineate in extensive detail the scope, nature, and purposes of the ITS funding used for support of non-ITS activities at Turner Fairbanks. How much of these funds are used for contracts with the Transportation Research Board that have little, if anything, to do with ITS?

Answer. The FHWA's R&T programs typically share proportionately in expenses associated with crosscutting efforts benefiting the overall R&T program, including support for the Transportation Research Board (TRB), and the Small Business Innovation Research (SBIR) program. The FHWA provided more detailed information on these expenses in R&T Technical Support justification included as a non-add line item in the 1997 budget request. The ITS share of these expenses in FY 1997 is shown as $4.1 million for TFHRC support/overhead, compared to $4.7 million for FY 1996. Below are the specific R&T Technical Support items and associated expenses (in thousands of dollars) for FY 1996 and FY 1997:

	1996	1997 Estimate
TRB Correlation Services	2,694	2,800
SBIR Program	4,818	6,540
R&T Report Center	300	325
ADP Support Services	1,736	1,910
Editorial Support Services	552	580
Total	$9,900	$12,155

About half of the R&T Technical Support expenses are associated with FHWA's legislatively-mandated SBIR contribution. The Small Business Research and Development Act (PL 102-564) requires all Federal agencies with a Research and Development budget in excess of $100 million to participate in the SBIR program. The purpose of the program is to stimulate technological innovation and use small businesses to develop and commercialize technical innovations. The SBIR program is supported through a set aside based on research, development and technology funds spent on extramural research, for example, on research conducted by non-Federal entities. The legislatively-mandated SBIR set aside was 1.5 percent in FY 1994, 2.0 percent in FY 1995 and FY 1996, and will be 2.5 percent in FY 1997. The research portion of the State Planning Research (SPR) funds expended by States constitutes extramural research using Federal research funds under the SBIR program. About 30 percent of FHWA's annual assessment for the SBIR program is associated with the SPR program; FHWA pays the SBIR assessment in full from the RD&T programmatic funds without drawing any support from the SPR program. While FHWA's contribution to the SBIR program are used to carry out highway research and technology development, the mandatory nature of the contribution makes it difficult to reduce these expenses.

The FHWA's support for TRB is the second major cost item included in R&T Technical Support expenses. The TRB uses these funds to carry out a comprehensive program for advancing transportation RD&T among State and local governments, as well as the private sector. The TRB sponsors numerous ITS related committees on:

- communications for highway facilities and operations,
- traffic control devices,
- high-occupancy vehicle systems,
- freeway operations,
- simulation and measurement of vehicle and operator performance,
- highway capacity and quality of service,
- traffic flow theory and characteristics,

- transportation systems management,
- traffic signal systems, and
- new transportation systems and technology.

The TRB sponsors conferences and workshops on ITS issues, typically with the help of committee members and TRB staff including the recent Third Symposium on Integrated Traffic Management Systems and the upcoming National Conference on Congestion Management and Mobility Enhancement. The FHWA believes the activities carried out under R&T Technical Support are critical to the success and the effectiveness of the RD&T program.

Question. Please update the tables found on pages 191 and 192 of Senate Hearing 103-810, Part I regarding ITS earmarks. Also include in your answer FY 1996 earmarks.

Answer. The attached tables give earmarks and unobligated balances for ITS projects for Fiscal Years 1992, 1993, 1994, 1995, and 1996.

Fiscal Year 1992 Earmarks General Operating Expense (GOE) Funds	Amount Earmarked (Millions)	Amount Unobligated as of 6/5/96
Advantage I-75	$ 1.0	$ 0.00
ATMS, Oakland Co.	10.0	0.00
Chicago (ADVANCE)	7.5	0.00
Crescent	2.0	0.00
Detroit	0.5	0.00
Miami	5.0	0.00
GuideStar, MN	10.0	0.00
Houston	2.0	0.00
Philadelphia	2.0	0.00
Electric Vehicle, CA	1.5	0.00
SmartCorridor, CA	1.0	0.00
TRANSCOM, NY/NJ	3.0	0.00
MAGIC, NY/NJ	4.0	0.00
Toll Road, ETTM, NJ	25.0	0.00
Int. Corr. Mgmt., NJ/Phil.	6.0	0.00
Signal Computerization, NJ	6.0	0.00

Southern State Parkway, NY	20.0	0.00
Spellman Parkway, MD	0.3	0.00
Maryland Arterials	2.2	0.00
TOTALS	$109.0	$ 0.00

Fiscal Year 1993 Earmarks ISTEA and (GOE) Funds	Amount Ear-marked (Mllns)	Amount Unobligated as of 6/5/96
NE Corridor (MD to CT)	$ 10.500	$ 0.000
Gary Corridor, IN	1.400	0.750
Houston Corridor	3.105	0.000
Anaheim Corridor	4.200	0.000
Smart Corridor	4.900	0.000
Chicago Corridor	0.500	0.420
Milwaukee Corridor	0.500	0.420
San Diego, CA	2.100	0.000
Chicago (ADVANCE)	4.550	0.000
Miami-Ft. Lauderdale	2.240	0.000
Seattle, WA	3.500	0.000
Detroit, MI	0.700	0.000
GuideStar, MN	8.750	0.000
Orlando (TravTek)	0.500	0.000
Help/Cresent	0.525	0.000
Advantage I-75	1.400	0.000
I-80 CVO	0.700	0.000
Oakland County (FAST-TRAC)	10.500	0.000
Sutter County, CA	1.750	0.000
Fairfax County, VA	5.250	0.000
NJ (Police Comm. Center)	3.500	0.000
Signal Computerization, NJ	7.000	0.000

Toll Road, ETTM, NJ	7.000	0.000
MAGIC, NY/NJ	6.280	0.000
TRANSCOM, NY/NJ	2.400	0.000
Southern State Parkway, NY	14.000*	0.000
New York State Thruway	5.250	0.000
ISTEA Total	**113.000**	**1.590**
George Mason University	1.600	0.000
Humphrey Institute	.760	0.000
GOE Total	**2.360**	**0.000**
Grand Total	**$115.360**	**$ 1.590**

* $13.95 million was rescinded from this project in FY 95

Fiscal Year 1994 Earmarks ISTEA and (GOE) Funds	Amount Earmarked (Mllns)	Amount Unobligated as of 4/18/95
Albuquerque, NM (Sandia Labs)	$ 2.0	$ 0.0
Bronx/N. Manhattan ATMS	2.4	0.0
Buffalo/Niagara Falls ATMS	2.0	0.0
Charlotte, NC (CARAT)	6.0	0.0
Chicago, IL (ADVANCE)	6.0	0.0
Gary-Chicago-Milwaukee Corridor	2.5	0.0
George Mason Univ., VA	2.0	0.0
Houston, TX Corridor	2.0	0.0
Johnson City, TN	2.5	0.0
Minnesota (GuideStar)	6.0	0.0
Montgomery County, MD ATMS	1.0	0.0
NYS Thruway (elec. tolls)	6.4	0.0

NE Corridor (MD to CT)	1.0	0.0
Oakland Co., MI (Fast-Trac)	20.0	0.0
San Diego, CA	5.0	0.0
Seattle, WA (Smohomish)	1.5	0.0
Southeast Michigan (SMART)	4.5	0.0
SR 9, NJ (Smart Bus)	1.5	0.0
Toll Road ETTM, Atl. City, NJ	3.0	0.0
TRANSCOM, NY/NJ	2.2	0.0
ISTEA Total	79.5	0.0
IOWA CVO	2.0	0.0
Humphrey Institute	.95	0.0
GOE Total	2.95	0.0
Grand Total	82.45	0.0

Fiscal Year 1995 Earmarks ISTEA Funds	Amount Earmarked (Mllns)	Amount Unobligated as of 6/5/96
Minnesota (GuideStar)	$6.825	$ 0.0
Oakland County, MI (Fast-Trac)	15.000	0.0
Charlotte, NC (CARAT)	4.500	0.0
Houston, Texas	2.250	0.0
Lower Hudson Valley, NY	1.500	0.0
I-95 Corridor	7.500	0.0
Bronx-Northern Manhattan	2.250	0.0
University of North Dakota	0.750	0.0
Hazardous material trans. safety	1.500	0.0
Detroit, Michigan (SMART)	7.500	0.0
Santa Teresa, NM crossing	1.680	0.0
Johnson City, Tennessee	3.750	3.750

TRANSCOM, NY/NJ	2.625	0.0
Syracuse, NY congestion management	1.500	0.0
Brooklyn/Bronx/Queens signalization	3.750	0.0
National Trans. Center, Oakland, NY	1.870	0.0
Advanced railroad/highway crossings	2.625	0.0
New Jersey Turnpike	2.625	0.0
Green light CVO project, OR	6.000	0.0
ISTEA Total	**$76.000**	**$3.750**

Fiscal Year 1996 Earmarks ISTEA Funds	Amount Earmarked (Mllns)	Amount Unobligated as of 6/5/96
I-10 Mobile, Alabama	$ 3.000	$ 3.000
Hazardous materials fleet management and monitoring system (NIER)	2.500	2.500
Green light CVO project, Oregon	7.000	7.000
Capital beltway	4.000	4.000
Houston, Texas	2.200	2.200
Syracuse, New York congestion management	1.500	0.000
I-95 Corridor	3.500	3.500
Johnson City, Tennessee	1.500	1.500
Texas Transportation Institute	0.600	0.600
University of North Dakota	1.000	1.000
I-675/SR844/Col. Glenn, Fairborn, Ohio	1.000	1.000
Paralympiad	1.000	0.000
Santa Teresa border crossing, New Mexico	0.900	0.900
Western Transportation Institute, Montana	1.000	1.000
TRANSCOM, New York/ New Jersey	1.500	1.500
New York State Thruway	1.500	1.500

National Transportation Center, Oakdale, New York	2.000	2.000
Advanced railroad/highway crossings	1.250	1.250
Minnesota GuideStar	2.000	2.000
Salt Lake City	2.000	2.000
ISTEA Total	**$40.950**	**$38.450**

Question. Please update the summary of funding provided to date under the Priority Corridors program, the sites to be funding, the amount of funding that each has received, for Fiscal Years 1992 through 1996, and the amount each would receive in fiscal year 1997 under your budget request. Please relate these amounts to ISTEA requirements for the total corridors program.

Answer. The summary information follows.

	FY 92	FY 93	FY 94	FY 95	FY 96	FY 97
I-95	$0	7,015,000	7,750,000	7,500,000	8,000,000	16,500,000
G-C-M	$8,213,743	**11,336,000	**0	12,500,000	7,100,000	18,500,000
Houston	$2,000,000	3,105,000	2,000,000	6,500,000	6,200,000	14,000,000
S. Cal.	$1,000,000	9,572,154	5,545,126	8,000,000	7,900,000	18,300,000
Total for Priority Corridors	$11,213,743	31,058,154	15,295,126	34,500,000	29,200,000	67,300,000
Earmarked in Corridors	$22,505,257	114,846	64,611,874	28,449,000	13,407,000	0
Total Corridor (including earmarking)	$33,719,000	31,173,000	79,907,000	62,949,000	42,607,000	67,300,000
Total ISTEA Allocated to All Corridors	$71,000,000	86,000,000	86,000,000	86,000,000	75,214,000	86,000,000
Percent Spent on Priority Corridors	47.5%	36.3%	92.9%	73.2%	56.6%	78.3%

ISTEA requires 50% of funds allocated to the Corridors be spent in Priority Corridor projects. For FY 92 through FY 96, 61.9% of the corridor funds where actually spent in the Priority Corridors.

*The above amounts for FY 97 are included in the President's Budget Request for Priority Corridors and it assumes no Congressional earmarking. In prior years, Congressional earmarking for projects outside the Priority Corridors has reduced the funds available for these corridors.

** Funding provided late in FY 93 provided sufficient funds for activities through FY 94.

Question. Please list the local government entities which have received early deployment study funding under the ITS program. List the areas and the amount of funding each has received, and the year the funding was provided.

Answer. The information requested is provided in the following table.

No.	Project	State	Status	Funds (000)	Start On	Fiscal Year	Target Comp Date	Sponsor	Scope
1	Atlanta	GA		$450	10/94	FY 93	1/97	GA DOT	Statewide Plan
2	Austin	TX		400	6/95	FY 92	9/96	Austin + TX DOT	Area Wide
3	Baltimore	MD		456	6/95	FY 95	1/98	Balt. MPO + MSHA	Area Wide
4	Birmingham	AL	Compl	400	2/94	FY 94	12/95	Alb DOT	Area Wide
5	Boston	MA	Compl	360	4/92	FY 92	1/94	Mass DOT	Area Wide
6	Buffalo	NY		400	9/93	FY 93	3/97	NY DOT	Area Wide
7	Charleston	SC		320	3/93	FY 92	2/96	SC DOT	Area Wide
8	Charlotte	NC	Compl	400	6/92	FY 92	12/93	NC DOT	Area Wide
9	Chicago	IL		400	7/95	FY 95		IL DOT	Area Wide
10	Cleveland	OH		400	9/93	FY 93	8/96	ODOT	Area Wide
11	Columbus	OH		188	8/95	FY 95	2/97	ODOT + MDPRC	Integration Study
12	Dallas	TX	Compl	600	9/92	FY 92	10/95	TX DOT	Area Wide
13	Dayton/ Springfield	OH		400	8/95	FY 95	8/97	ODOT + Miami Valley	Surv & Control Feasibility
14	Denver	CO	Compl	213	12/91	FY 91	4/93	Col DOT	Area Wide
15	Denver	CO		500	9/92	FY 92	6/97	Co DOT	Proj. Engr..
16	Des Moines	IA		275	3/95	FY 95	10/96	Iowa DOT	Area Wide
17	Detroit	MI	Compl	400	9/92	FY 92	3/94	MI DOT	Area Wide
18	El Paso	TX		336	4/95	FY 95	3/97	TX DOT	Border Clear.
19	Fort Worth	TX		400	4/95	FY 95	11/97	TX DOT	Area Wide
20	Grand Rapids	MI	Compl	400	7/94	FY 94	12/95	MI DOT	Area Wide

No.	Project	State	Status	Funds (000)	Start On	Fiscal Year	Target Comp Date	Sponsor	Scope
21	Greensboro	NC	Compl	200	6/92	FY 92	12/94	NC DOT	Area Wide
22	Greenville	SC	Compl	200	3/93	FY 92	1/96	SC DOT	Area Wide
23	Hampton Roads	VA	Compl	486	9/92	FY 92	10/95	VA DOT	Area Wide
24	Hartford	CT		400	6/94	FY 94	8/96	Conn DOT + MPO	Area Wide
25	Honolulu	HI		400	6/94	FY 94	12/96	HWDOT + MPO	Area Wide
26	I-10, New Orleans-San Antonio	TX		250	6/95	FY 95		TX DOT	Corridor
27	I-279/376, Penn. Turnpike	PA	Compl	300	11/93	FY 93	4/96	PA DOT + PTC	Corridor
28	I-40, N. Arizona	AZ		130	1/95	FY 95	6/97	AZ DOT	Corridor
29	I-5, LA-San Diego	CA		150		FY 92		Caltrans	Corridor
30	I-5, Seattle-Portland	WA	Compl	120	3/94	FY 92	11/95	Wash DOT	Corridor
31	I-5, Seattle-Vancouver-Spokane	WA		240	1/95	FY 95	12/96	Wash DOT	Corridor
32	I-70, Denver	CO	Compl	168	7/92	FY 92	12/95	Col Dot	Corridor
33	I-71, Columbus-Cleveland	OH		200	8/95	FY 95	4/97	ODOT	Corridor
34	I-79, Erie-Pittsburgh	PA		300	6/95	FY 95	1/97	PA DOT	Corridor
35	I-84, Portland-Boise	WA		320	1/95	FY 95	12/96	Wash DOT	Corridor
36	I-90/94, Milwaukee-Minn.	WI		240	3/95	FY 95	1/97	WI DOT	Corridor
37	Garden State Pkwy	NJ		198	1/95	FY 95	11/96	NJ DOT	Corridor
38	Indianapolis	IN		400	6/94	FY 94	7/96	IN DOT	Area Wide
39	Jacksonville	FL		400	4/95	FY 95	10/96	FL DOT	Area Wide
40	Kansas City	KS	Compl	400	9/93	FY 93	3/96	KDOT + MoHTD	Area Wide

No.	Project	State	Status	Funds (000)	Start On	Fiscal Year	Target Comp Date	Sponsor	Scope
41	Kern County	CA		350	1/95	FY 95	7/97	Caltrans + Kern Co.	Area Wide
42	Las Vegas	NV		400	1/93	FY 93	6/96	NV DOT	Area Wide
43	Lexington	KY		200	3/95	FY 95	9/96	KDOT + Lex.	Area Wide
44	Louisville	KY	Compl	250	6/92	FY 92	5/94	KTC	Area Wide
45	Memphis	TN		400	6/95	FY 95	12/96	TN DOT + MPO	Area Wide
46	Nashville	TN		220	3/95	FY 94	12/96	TN DOT + MPO	Area Wide
47	New Castle County	DE		400	3/95	FY 95	8/96	Del DOT	Area Wide
48	New Haven/ Meriden	CT		350	3/95	FY 95	3/97	Conn DOT	Area Wide
49	New Orleans	LA		400	9/93	FY 93	9/96	LA DOT	Area Wide
50	NYC/No. Jersey	NY		750	3/95	FY 95	3/97	NY DOT	Area Wide
51	No. Virginia/ DC	VA	Compl	400	3/93	FY 93	6/96	VA DOT	Area Wide
52	Omaha	NE	Compl	400	9/93	FY 93	12/95	NE DR	Area Wide
53	Orange Co.	CA	Compl	450	9/93	FY 92	3/96	Caltrans + Orange Co.	Prelim. Dsn.
54	Orlando	FL		400	4/95	FY 95	10/96	FL DOT	Area Wide
55	Philadelphia	PA		400	7/94	FY 94	3/97	PA DOT	Area Wide
56	Phoenix	AR		400	7/94	FY 94	5/96	AZ DOT + Maricopa Co.	Area Wide
57	Pittsburgh	PA	Compl	400	12/92	FY 92	3/94	PA DOT	Area Wide
58	Portland	OR	Compl	400	6/92	FY 91	1/95	Oregon DOT	Area Wide
59	Providence	RI		400	9/92	FY 94	7/96	RI DOT	Area Wide
60	Raleigh area	NC		250	7/94	FY 93	2/96	NC DOT	Area Wide
61	Richmond	VA		400	7/94	FY 94	10/96	VA DOT	Area Wide
62	Rochester	NY	Compl	400	3/94	FY 92	3/96	NY DOT	Area Wide
63	Sacramento	CA		400	6/93	FY 93	7/96	CA DOT + MPO	Area Wide

No.	Project	State	Status	Funds (000)	Start On	Fiscal Year	Target Comp Date	Sponsor	Scope
64	Salt Lake City	UT		400	9/93	FY 93	6/96	Utah DOT	Area Wide
65	San Antonio	TX		397	4/95	FY 95	6/97	TX DOT	Area Wide
66	San Diego Border	CA		200	1/95	FY 95	6/97	CA DOT	Border Cross.
67	San Francisco	CA		450	8/93	FY 93	8/96	CA DOT + MTC	Area Wide
68	San Juan	PR		400	5/94	FY 93	3/97	PR DOT	Area Wide
69	Scranton/ Wilkes Barre	PA		350	6/95	FY 95	1/97	PA DOT	Area Wide
70	Springfield	MA		350	1/95	FY 95	10/96	Mass DOT	Area Wide
71	St. Louis	MO	Compl	280	9/92	FY 92	5/94	Mo HTD	Area Wide
72	Syracuse	NY		350	1/95	FY 95	3/97	NY DOT	Area Wide
73	Tampa	FL	Compl	80	1/92	FY 92	10/93	FL DOT	Area Wide
74	Tucson	AZ		400	7/94	FY 93	7/96	AZ DOT + PIMA CO.	Area Wide
75	Washington	DC		400	7/94	FY 94	7/97	DC DPW	Area Wide
76	Washington (umbrella))	DC		200	3/95	FY 95	1/97	VA DOT	Area Wide
77	Westchester Co. - White Plains	NY		400	12/95	FY 94	10/96	NY DOT	Area Wide

Question. What evidence do you have that the expenditures on early deployment studies are paying any dividends? Of those metropolitan areas that received Federal support for these studies, how many have installed ITS systems? How much have they spent? What further plans do you have in this area?

Answer. Out of the 77 Early Deployment Planning (EDP) studies initiated since the start of this program in 1992, 18 have been completed. We are beginning to see a significant number of ITS projects moving through the regular transportation planning process toward implementation.

Based on the information collected in the ITI Deployment Database for 75 of the largest metropolitan areas in the United States, ITI components are deployed nationwide as shown in the following table. It should be noted that multiple jurisdictions make up many of the metropolitan areas across the country and data in this table does not necessarily reflect area wide ITI component coverage.

Freeway Management Centers	41
Advanced Public Transit Systems	39
Centralized Traffic Signal Control Systems	57
Incident Management Programs	39
Electronic Toll Collection Systems	28
Electronic Fare Collection Systems	18
Emergency Management Systems	*
Railroad Grade Crossing Warning Systems	*
Regional Multi-modal Traveler Information Systems	**

* Information on these systems has not yet been added to the ITI Deployment Database.

** While a number of metropolitan areas have regional traveler information systems through the private sector (such as Smartroutes in Boston and Cincinnati, Shadow Traffic and Metro Traffic, etc.), the Smart Traveler program in Anaheim and Orange County, California is the only existing system that comes closest to meeting the definition of a regional multi-modal traveler information system. In addition, the Atlanta Showcase, ATIS Kiosk, and Regional ATMS projects will provide the best example of a totally integrated traveler information system when it becomes operational later this summer.

A number of noteworthy examples of projects currently being advanced include:

- In the St. Louis metropolitan area, including adjacent counties in Illinois, a new traffic management center, emergency traffic patrols, motorist call boxes, and a Highway Advisory Radio system are being advanced.

- Dallas, Texas is implementing a comprehensive freeway management system including system surveillance and incident detection; motorist assistance patrols and enhanced incident management practices; real-time traveler information systems through connections to the Internet and existing private sector radio and television traffic services, and changeable message signs along the freeways; and an advance vehicle location system for the DART buses fleet.

- In Denver, a freeway management system for I-70 and I-25 is currently being installed and a traffic management and traveler information system for the City of Denver has just completed installation of a state-of-the-art advanced public transit system with vehicle location capability.

- An enhanced incident management system is being implemented in Birmingham, Alabama as an outgrowth of the EDP study recently complete there. In addition, a freeway surveillance and control system is being advanced through the design process.

- A freeway surveillance and traveler information system is advancing toward a late 1996 construction start in Pittsburgh, PA. Included in this construction project will be an advanced high occupancy vehicle (HOV) lane surveillance and control system developed to address HOV operation problems that came to light following a fatal accident in 1995 and a number of reported near misses from wrong way travel on the reversible HOV system there.

- The Early Deployment Planning Study completed for the Charlotte, NC area is credited with coordinating and expanding the traffic management and traveler information activities begun under the CARAT (Congestion Avoidance and Reduction for Autos and Trucks) Program.

Nationally, funds for Federal-aid obligations in four ITI component areas for fiscal years FY 1991-FY 1995, shown in the table below, reflect a steady increase in ITI related projects being advanced to the implementation stage.

	FY 1991	FY 1992	FY 1993	FY 1994	FY 1995
Traffic Signal Control Systems (incl. Computerized Systems)	272,801,631.76	317,244,058.92	380,704,078.85	452,151,298.78	494,000,112.21
Freeway Traffic Surveillance and Control Systems	72,478,786.26	153,827,574.15	368,680,215.57	408,677,197.65	503,570,854.94
Motorist Aid System	13,930,195.96	6,989,865.32	22,352,084.80	45,239,999.60	32,100,288.60
Highway Information	13,078,923.29	15,997,416.38	16,513,740.64	20,738,932.13	25,432,206.01
Rail-Highway Grade Crossing (Sec. 130)	151,273,600.00	162,110,400.00	160,218,600.00	182,685,200.00	150,608,600.00

The data indicates an increasing trend in utilization of Federal-Aid funds to deploy components on arterials and freeways. The trends mirror similar use of other non-Federal funds (e.g. State funds) which we believe are also being applied to support the deployment of these ITI components.

Nearly $1 billion of Federal-Aid funds have been obligated in FY 95 for traffic signal systems and freeway management systems. This represents about an 18 percent increase over FY 1994 totals for these primary systems and an over 200 percent increase in use of the Federal-aid funds since FY 1991.

Through strong programs in awareness, training, and technical assistance, we will continue to encourage state and local governments to invest in ITI components and systems.

Question. Please discuss how FHWA and the States are using the new provisions that were enacted into the NHS Designation Act of 1995 to advance the national ITS Program.

Answer. Section 301 of the National Highway System (NHS) Designation Act of 1995 provides State and local governments with increased flexibility in their use of Federal-aid funds in the following ways:

1. Section 301 amends the definition of work elements eligible for NHS funding in Title 23 U.S.C. 103 to include capital and operating costs of traffic monitoring, management, and control facilities startup and operating costs for traffic control and management projects.

2. Also by amending the definition of the term "project" in 23 U.S.C. 101, Section 301 of the NHS Designation Act has included capital and operating costs for traffic control and management facilities in the items considered eligible for up to 100 percent reimbursement under the provisions of 23 U.S.C. 120 (c).

In the past, State and local government officials have cited their inability to cover increased capital and operating costs of enhanced transportation management systems as a significant deterrent to the implementation of ITS systems. The NHS Designation Act has provided a means to fund these expenses. At this time, it is too early to determine what the impact these changes will have on State and local decisions to implement ITS projects. We have noted however, that because maintenance is not included as an eligible expense local agencies are finding some difficulty in leasing communications systems, unless the lease is very carefully written to exclude costs of maintaining the system.

Question. Please specify in detail, the scope, amounts, and nature of projects that have been funded from monies that have been obligated under the IDEAS program.

Answer. To date the IDEA Program has funded 52 grants to determine the feasibility of, or develop a prototype of, an innovative ITS concept. All but two of these, which involved actual prototype development, were funded at less than $100,000 each. The two prototype development projects were each funded at approximately $250,000. IDEA projects funded to date have dealt with such topics as traffic surveillance and control, vehicle control, ride matching, commercial vehicle brake inspection, driver behavior and highway safety. Several of the early projects have resulted in products that are currently at or near the stage of commercial production. Examples include a traffic management product that uses the power line to control a traffic signal controller or variable message sign and a laser-based, three-dimensional vehicle scanning system designed to capture the necessary information at highway speeds.

Question. Please prepare a table indicating ITS funding for each of the last four fiscal years for FHWA, FTA, and NHTSA.

Answer. Following is a table which shows ITS funding by administration for the fiscal years 1993 through 1996.

(Dollars in Millions)

	FY 1993	FY 1994	FY 1995	FY 1996
FHWA	$143.0	$203.3	$187.2*	$203.8
FTA	3.0	2.8	3.0	**
NHTSA	7.0	7.5	7.3	**
TOTAL	$153.8	$213.6	$197.5	$203.8

NOTE: FHWA amounts include transfers to NHTSA in the amounts of $2 million, $7 million, and $7.5 million in fiscal years 1993, 1994 and 1995 respectively.

It is also noted that during the past few years FHWA funds have been utilized to fund several transit related ITS projects (as an example, we transferred $6.8 million in FY 1994 and $1.2 million in FY 1995 to FTA for transit projects in Atlanta related to the 1996 Olympic Games.)

* Excludes $40.3 million of ITS funds rescinded in FY 1995.

** FHWA funds include $1.523 million transferred to FTA and $14.679 million transferred to NHTSA.

Question. Please list the FHWA-sponsored reports on ITS that have been entered into the National Technical Information Service (NTIS). Which reports have not been entered and why?

Answer. In the following chart we list over 200 ITS and IVHS reports entered into the NTIS. To the best of our knowledge, all FHWA-sponsored reports on ITS that have been entered into NTIS. We are following FHWA policy on forwarding documents to the NTIS and working closely with NTIS to ensure all FHWA-sponsored reports are entered into the NTIS system.

ITS

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  1 of 40  User-Defined Format
 NTIS No: PB96-162938/HDM
 Title: Houston 'Smart Commuter' ITS Operational Test: FY 1995 Status Report;
Interim research rept. Sep 94-Aug 95

  2 of 40  User-Defined Format
 NTIS No: PB96-150602/HDM
 Title: Artificial Intelligence and Geographical Information; Transportation
research record

  3 of 40  User-Defined Format
 NTIS No: PB96-150503/HDM
 Title: Traffic Flow Theory and Characteristics with Applications for
Intelligent Transportation System Technologies; Transportation research record

  4 of 40  User-Defined Format
 NTIS No: PB96-150412/HDM
 Title: Intelligent Transportation Systems; Transportation research record

  5 of 40  User-Defined Format
 NTIS No: PB96-145552/HDM
 Title: Traffic Operations, Traffic Signal Systems, and Freeway Operations
1995; Transportation research record
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   6 of 40  User-Defined Format
  NTIS No: PB96-143987/HDM
  Title: Evaluation of the ITS Planning Process; Final rept


   7 of 40  User-Defined Format
  NTIS No: PB96-144795/HDM
  Title: Human Performance and Safety in Highway, Traffic, and ITS Systems;
Transportation research record


   8 of 40  User-Defined Format
  NTIS No: PB96-139522/HDM
  Title: ITS Institutional and Legal Issues Program: Analysis of ITS
Operational Tests Findings and Recommendations; Final rept. Jun 93-Jun 95


   9 of 40  User-Defined Format
  NTIS No: DE96001748/HDM
  Title: Safety and security issues in developing and operating in intelligent
transportation systems


   10 of 40  User-Defined Format
  NTIS No: PB96-139274/HDM
  Title: Houston ITS Priority Corridor Program Plan; Interim research rept. Jul
94-Aug 95


   11 of 40  User-Defined Format
  NTIS No: PB96-135595/HDM
  Title: Bus Preemption Signal (BPS): An Application of an Advanced Public
Transportation System (APTS); Final rept


   12 of 40  User-Defined Format
  NTIS No: PB96-133731/HDM
  Title: Achievement Report, 1994. (Turner-Fairbank Highway Research Center);
Rept. 1 Oct 93-30 Sep 94


   13 of 40  User-Defined Format
  NTIS No: PB96-133715/HDM
  Title: Federal Highway Administration Research and Technology Program
Highlights 1994; Rept. for 1 Oct 93-30 Sep 94


   14 of 40  User-Defined Format
  NTIS No: PB96-131453/HDM
  Title: Multimedia Information Presentation in Smart Cars and Highways; Final
rept. 1994-95


   15 of 40  User-Defined Format
  NTIS No: PB96-125109/HDM
  Title: Immediate Action Program, Houston ITS Priority Corridor Program Plan;
Interim research rept. Jul 94-May 95


   16 of 40  User-Defined Format
  NTIS No: DE95015908/HDM
  Title: Remote monitoring of emissions using on-vehicle sensing and vehicle to
roadside communications


   17 of 40  User-Defined Format
  NTIS No: DE95015244/HDM
  Title: Technical and policy issues related to semantically and spatially
incompatible geodata


   18 of 40  User-Defined Format
  NTIS No: PB96-118294/HDM
  Title: Research: An Investment for the Future. A Biennial Report of CDOT
Research Activities 1993-1994


   19 of 40  User-Defined Format
  NTIS No: PB96-111257/HDM
  Title: Transit Planning and Research Reports: Annotated Bibliography, August
1995


   20 of 40  User-Defined Format
  NTIS No: DE95012268/HDM
  Title: Large-scale Intelligent Transporation Systems simulation


   21 of 40  User-Defined Format
  NTIS No: PB95-271243/HDM
  Title: Investigation of Operational Procedures for Highway Advisory Radio
Systems; Final rept
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22 of 40 User-Defined Format
NTIS No: PB95-262267/HDM
Title: Report on Programmatic Evaluation at the Human Factors Research Laboratory; Final rept. 1993-94

23 of 40 User-Defined Format
NTIS No: PB95-256228/HDM
Title: Synthesis Report: Examination of Target Vehicular Crashes and Potential ITS Countermeasures; Final rept. Sep 94-Apr 95

24 of 40 User-Defined Format
NTIS No: PB95-256731/HDM
Title: Hitachi Review. Vol. 43, No. 6, December 1994. New Technologies for Railway Systems

25 of 40 User-Defined Format
NTIS No: PB95-241923/HDM
Title: Institutional Barriers to the Deployment of CVO/IVHS Innovations in Ohio; Final rept

26 of 40 User-Defined Format
NTIS No: PB95-239968/HDM
Title: Traffic Flow Forecasting For Intelligent Transportation Systems; Final rept Jan 93-Jun 95

27 of 40 User-Defined Format
NTIS No: PB95-239646/HDM
Title: ITS Institutional and Legal Issues Program: Review of the Houston Smart Commuter Operational Test; Final rept. Oct 94-Jun 95

28 of 40 User-Defined Format
NTIS No: PB95-239638/HDM
Title: ITS Institutional and Legal Issues Program: Review of the Safires Operational Test; Final rept. Jul 94-Jun 95

29 of 40 User-Defined Format
NTIS No: PB95-240487/HDM
Title: Applicability of the Technologies of Intelligent Transportation Systems in Commercial Vehicle Operations at the Port of Houston's Intermodal Marine Container Terminal with Case Studies of Existing Systems; Research rept

30 of 40 User-Defined Format
NTIS No: PB95-218970/HDM
Title: Intelligent Transportation Systems: Evaluation, Driver Behavior, and Artificial Intelligence

31 of 40 User-Defined Format
NTIS No: PB95-215646/HDM
Title: Graduate Student Papers on Advanced Surface Transportation Systems (Fourth Offering), August 1994

32 of 40 User-Defined Format
NTIS No: PB95-209243/HDM
Title: Nationally Coordinated Program of Highway Research, Development, and Technology: Annual Progress Report, Fiscal Year 1994; Rept. for 1 Oct 93-30 Sep 94

33 of 40 User-Defined Format
NTIS No: PB95-209946/HDM
Title: Advanced Technologies for Improving Large-Truck Safety on Two-Lane Secondary Roads; Final rept

34 of 40 User-Defined Format
NTIS No: ED-376 823/HDM
Title: Information Infrastructure: Reaching Society's Goals. A Report of the Information Infrastructure Task Force Committee on Applications and Technology

35 of 40 User-Defined Format
NTIS No: PB95-194155/HDM
Title: ITS Institutional and Legal Issues Program: Review of the Travelaid Operational Test; Final rept. Jun-Oct 94

36 of 40 User-Defined Format
NTIS No: PB95-189536/HDM
Title: ITS Institutional and Legal Issues Program: Review of the Travelaid Operational Test; Final rept. Jun-Oct 94

37 of 40 User-Defined Format
NTIS No: PB95-179131/HDM
Title: ITS Institutional and Legal Issues Program: Review of the SmarTraveler Operational Test; Final rept. Aug 93-Oct 94

38 of 40 User-Defined Format
NTIS No: PB95-173092/HDM
Title: Evaluation of the Use of Live Aerial Video for Traffic Management; Final rept. Jul 93-Apr 94

39 of 40 User-Defined Format
NTIS No: PB95-144259/HDM
Title: Economic and Policy Considerations of Advanced Public Transportation Systems (APTS): Background and Review of Evaluation Approaches; Final rept. Jul 93-Oct 94

40 of 40 User-Defined Format
NTIS No: PB94-214756/HDM
Title: Information Infrastructure: Reaching Society's Goals. Report of the Information Infrastructure Task Force Committee on Applications and Technology; Special pub

IVHS

1 of 202 User-Defined Format
NTIS No: PB96-165386/HDM
Title: Suggested Procedures and Acceptance Limits for Assessing the Safety and Ease of Use of Driver Information Systems; Final rept. Sep 91-Nov 93

2 of 202 User-Defined Format
NTIS No: PB96-158381/HDM
Title: U.S. Competitive Highway Transportation Infrastructure: Benefits and Actions

3 of 202 User-Defined Format
NTIS No: PB96-150602/HDM
Title: Artificial Intelligence and Geographical Information; Transportation research record

4 of 202 User-Defined Format
NTIS No: PB96-144811/HDM
Title: Issues in Marine, Intermodal, and Motor Carrier Transportation; Transportation research record

5 of 202 User-Defined Format
NTIS No: PB96-144795/HDM
Title: Human Performance and Safety in Highway, Traffic, and ITS Systems; Transportation research record

6 of 202 User-Defined Format
NTIS No: PB96-143706/HDM
Title: Study of the Accuracy and Reliability of Automatic Traffic Recording Devices; Final rept

7 of 202 User-Defined Format
NTIS No: PB96-139522/HDM
Title: ITS Institutional and Legal Issues Program: Analysis of ITS Operational Tests Findings and Recommendations; Final rept. Jun 93-Jun 95

8 of 202 User-Defined Format
NTIS No: PB96-136643/HDM
Title: Eastern States Institutional Issues Study for Commercial Vehicle Operations (CVO); Final research rept

9 of 202 User-Defined Format
NTIS No: PB96-133723/HDM
Title: Research and Technology Program 1994-1998. (Federal Highway Administration); Rept. for 1 Oct 93-30 Sep 94

10 of 202 User-Defined Format
NTIS No: PB96-131453/HDM
Title: Multimedia Information Presentation in Smart Cars and Highways; Final rept. 1994-95

11 of 202 User-Defined Format
NTIS No: PB96-854054/HDM
Title: Intelligent Vehicle Highway Systems (IVHS). (Latest Citations from the INSPEC Database); Published Search

12 of 202 User-Defined Format
NTIS No: PB96-852389/HDM
Title: Collision Avoidance Technology. (Latest citations from the INSPEC Database); Published Search

13 of 202 User-Defined Format
NTIS No: PB96-115191/HDM
Title: Public and Private Sector Roles in Intelligent Vehicle-Highway Systems (IVHS) Deployment. Summary of Seminar Proceedings. Held in Rockville, Maryland on April 8-9, 1992. Searching for Solutions. A Policy Discussion Series; Final rept

14 of 202 User-Defined Format
NTIS No: PB96-115159/HDM
Title: Examination of Transportation Industry Productivity Measures. Summary of Proceedings: Highway-Related Transportation Industry Productivity Measures Symposium. Held in Arlington, Virginia on November 19-20, 1992. Searching for Solutions. A Policy Discussion Series; Final rept

15 of 202 User-Defined Format
NTIS No: PB95-269650/HDM
Title: Development of Human Factors Guidelines for Advanced Traveler Information Systems and Commercial Vehicle Operations. ATIS and CVO Development Objectives and Performance Requirements; Resource materials rept. Oct 92-Jul 96

16 of 202 User-Defined Format
NTIS No: PB95-266524/HDM
Title: Measures and Methods Used to Assess the Safety and Usability of Driver Information Systems; Final rept. Sep 91-May 93

17 of 202 User-Defined Format
NTIS No: PB95-266516/HDM
Title: TravTek System Architecture Evaluation; Final rept. Nov 91-Mar 94

18 of 202 User-Defined Format
NTIS No: PB96-109616/HDM
Title: Relationships between Traffic Congestion and Safety: A Discussion of Issues and Past Research

19 of 202 User-Defined Format
NTIS No: PB96-100953/HDM
Title: Environmental Sensor Systems for Safe Traffic Operations; Final rept

20 of 202 User-Defined Format
NTIS No: PB95-275632/HDM
Title: Evaluation of a Motorist Information System Using Computer Display Terminals; Final research rept. Mar 91-Aug 92

21 of 202 User-Defined Format
NTIS No: PB95-264511/HDM
Title: New Technology Options for Transit in California: Internal Appendix; Final rept

22 of 202 User-Defined Format
NTIS No: PB95-263166/HDM
Title: MIDAS: Motorist Information and Driver Automation Systems; Final rept. Aug-Dec 90

23 of 202 User-Defined Format
NTIS No: PB95-263158/HDM
Title: ENTERPRISE Program: Evaluating New Technologies for Roads Program Initiatives in Safety and Efficiency; Final rept. Feb-Apr 91

24 of 202 User-Defined Format
NTIS No: PB95-262267/HDM
Title: Report on Programmatic Evaluation at the Human Factors Research Laboratory; Final rept. 1993-94

25 of 202 User-Defined Format
NTIS No: PB95-261053/HDM
Title: New Technology Options for Transit in California; Final rept

26 of 202 User-Defined Format
NTIS No: PB95-253696/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. AHS Systems Analysis. Volume 4; Final rept. 9 Sep 93-30 Oct 94

27 of 202 User-Defined Format
NTIS No: PB95-253688/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Overview Report, Volume 1; Final rept. 9 Sep 93-30 Oct 94

28 of 202 User-Defined Format
NTIS No: PB95-253670/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Activity Area P. Preliminary Cost/Benefit Factors Analysis. Volume 5. Analysis of Automated Highway System Risks and Uncertainties; Final rept. Sep 93-Nov 94

29 of 202 User-Defined Format
NTIS No: PB95-253662/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Activity Area P. Preliminary Cost/Benefit Factors Analysis. Volume 1. Cost/Benefit Analysis of Automated Highway Systems; Final rept. Sep 93-Nov 94

30 of 202 User-Defined Format
NTIS No: PB95-253621/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Activity Area P. Preliminary Cost/Benefit Factors Analysis. Volume 6. Review of Studies on Automated Highway System Benefits and Impacts; Final rept. Sep 93-Nov 94

31 of 202 User-Defined Format
NTIS No: PB95-249264/HDM
Title: Automated Incident Management Plan Using Geographic Information Systems Technology for Traffic Management Centers; Final research rept. Aug 92-Jul 93

32 of 202 User-Defined Format
NTIS No: PB95-242145/HDM
Title: Human Factors Aspects of the Transfer of Control from the Automated Highway System to the Driver; Working paper Oct 93-Sep 94

33 of 202 User-Defined Format
NTIS No: PB95-241923/HDM
Title: Institutional Barriers to the Deployment of CVO/IVHS Innovations in Ohio; Final rept

34 of 202 User-Defined Format
NTIS No: PB95-241576/HDM
Title: TravTek Evaluation Task C3. Camera Car Study; Final rept. Sep 92-May 94

35 of 202 User-Defined Format
NTIS No: PB95-241568/HDM
Title: Description of the Integrated Driver Model; Final rept. Dec 89-Nov 93

36 of 202 User-Defined Format
NTIS No: PB95-239638/HDM
Title: ITS Institutional and Legal Issues Program: Review of the Safires Operational Test; Final rept. Jul 94-Jun 95

37 of 202 User-Defined Format
NTIS No: PB95-253647/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. AHS Alternative Propulsion System Impact. Volume 6; Final rept. 9 Sep 93-30 Oct 94

38 of 202 User-Defined Format
NTIS No: PB95-241840/HDM
Title: IVHS Data and Information Structure. Final Technical Report

39 of 202 User-Defined Format
NTIS No: PB95-241733/HDM
Title: IVHS Data and Information Structure. Final Summary Report

40 of 202 User-Defined Format
NTIS No: PB95-240511/HDM
Title: Implementation Guide for CARAT: Congestion Avoidance and Reduction for Autos and Trucks. Final Report; Rept. for Mar 94-Feb 95

41 of 202 User-Defined Format
NTIS No: PB95-240446/HDM
Title: Evaluation of Automatic Vehicle Location Systems in Public Transit; Final rept. Aug 92-Aug 93

42 of 202 User-Defined Format
NTIS No: PB95-232286/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Legal, Institutional and Societal Issues Related to the Deployment and Operation of an Automated Highway System. Activity Area O. Institutional and Societal Aspects; Final rept. Jul 93-Nov 94

43 of 202 User-Defined Format
NTIS No: PB95-232369/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Activity Area P Preliminary Cost/Benefit Factors Analysis. Volume 2. System Configurations: Evolutionary Deployment Considerations; Final rept. Sep 93-Nov 94

44 of 202 User-Defined Format
NTIS No: PB95-231668/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Activity Area J. AHS Entry/Exit Implementation; Final rept. Sep 93-Nov 94

45 of 202 User-Defined Format
NTIS No: PB95-231650/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Activity Area I. Impact of AHS on Surrounding Non-AHS Roadways; Final rept. Sep 93-Nov 94

46 of 202 User-Defined Format
NTIS No: PB95-231544/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Activity Area H: AHS Roadway Deployment Analysis; Final rept. Sep 93-Nov 94

47 of 202 User-Defined Format
NTIS No: PB95-231510/HDM
Title: Responsive Multimodal Transportation Management Strategies and IVHS; Final rept. Oct 91-Feb 94

48 of 202 User-Defined Format
NTIS No: PB95-878088/HDM
Title: Automobile Guidance Systems. (Latest citations from the INSPEC Database); Published Search

49 of 202 User-Defined Format
NTIS No: PB95-226734/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Activity Area L, Vehicle Operational Analysis; Final rept. Sep 93-Nov 94

50 of 202 User-Defined Format
NTIS No: PB95-226288/HDM
Title: Integration of In-Vehicle Electronics for IVHS and the Electronics for Other Vehicle Systems. Technical Summary

51 of 202 User-Defined Format
NTIS No: PB95-226213/HDM
Title: MIMIC Sensor Technology for Highway Vehicle Applications: Potential and Challenges for the Future; Final rept

52 of 202 User-Defined Format
NTIS No: PB95-226197/HDM
Title: Integration of In-Vehicle Electronics for IVHS and the Electronics for Other Vehicle Systems. Final Report; Rept. for Sep 94-Mar 95

53 of 202 User-Defined Format
NTIS No: PB95-226106/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Activity Area G. Comparable Systems Analysis; Final rept. Sep 93-Nov 94

54 of 202 User-Defined Format
NTIS No: PB95-226098/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Activity Area B. Automated Check-In; Final rept. Sep 93-Nov 94

55 of 202 User-Defined Format
NTIS No: PB95-226080/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Contract Overview; Final rept. Sep 93-Nov 94

56 of 202 User-Defined Format
NTIS No: PB95-226072/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Activity Area F. Commercial and Transit AHS Analysis; Final rept. Sep 93-Nov 94

57 of 202 User-Defined Format
NTIS No: PB95-226064/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Activity Area D. Lateral and Longitudinal Control Analysis; Final rept. Sep 93-Nov 94

58 of 202 User-Defined Format
NTIS No: PB95-221628/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Activity Area M. Alternative Propulsion Systems Impact; Final rept. Sep 93-Nov 94

59 of 202 User-Defined Format
NTIS No: PB95-221586/HDM
Title: Precursor Systems Analyses of Automated Highway Systems: AHS Institutional, Societal, and Cost Benefit Analysis. Final Report Volume 8; Rept. for 9 Sep 93-30 Oct 94

60 of 202 User-Defined Format
NTIS No: PB95-220380/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. AHS Malfunction Management and Safety Analysis: Final Report. Volume 5; Rept. for 9 Sep 93-30 Oct 94

61 of 202 User-Defined Format
NTIS No: PB95-218970/HDM
Title: Intelligent Transportation Systems: Evaluation, Driver Behavior, and Artificial Intelligence

62 of 202 User-Defined Format
NTIS No: DE95006532/HDM
Title: Traffic Flow Wide-Area Surveillance system

63 of 202 User-Defined Format
NTIS No: PB95-211991/HDM
Title: Evaluation of Electronic Truck Monitoring; Research rept

64 of 202 User-Defined Format
NTIS No: PB95-210241/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Lateral and Longitudinal Control Analysis. Volume 4; Final rept. Oct 93-Sep 94

65 of 202 User-Defined Format
NTIS No: PB95-209938/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Automated Check-in. Volume 2; Final rept. Oct 93-Feb 95

66 of 202 User-Defined Format
NTIS No: PB95-213914/HDM
Title: Dynamic Traffic Management in Nederland: Een Overzicht (Application of Dynamic Traffic Management in the Netherlands)

67 of 202 User-Defined Format
NTIS No: PB95-213500/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Activity Area H: Roadway Deployment Analysis; Final rept. Sep 93-Nov 94

68 of 202 User-Defined Format
NTIS No: PB95-212346/HDM
Title: Precursor Systems Analyses of Automated Highway Systems. Activity Area J: Entry/Exit Implementation; Final rept. Sep 93-Nov 94

69 of 202 User-Defined Format
NTIS No: PB95-209961/HDM
Title: Human Factors in IVHS: Age, Driving Stress and Health; Final rept

70 of 202 User-Defined Format
NTIS No: PB95-201562/HDM
Title: Precursor Systems Analyses of Automated Highway Systems Activity Area M: Alternative Propulsion Systems Impacts; Resource rept. (Final)

71 of 202 User-Defined Format
NTIS No: PB95-200986/HDM
Title: Issues in GIS for Transportation; Technical rept

72 of 202 User-Defined Format
NTIS No: PB95-201430/HDM
Title: Assessment of Washington State Traveler Information Systems Based on a General ATIS Taxonomy; Final technical rept

73 of 202 User-Defined Format
NTIS No: PB95-200663/HDM
Title: Institutional Issues Impacting the Implementation of Intelligent Vehicle Highway Systems for Commercial Vehicle Operations in Texas

74 of 202 User-Defined Format
NTIS No: PB95-199915/HDM
Title: Benefits of Real-Time Travel Information in Houston, Texas; Research rept

75 of 202 User-Defined Format
NTIS No: PB95-199337/HDM
Title: Examination of Reduced Visibility Crashes and Potential IVHS Countermeasures; Final rept. Mar-Jun 94

76 of 202 User-Defined Format
NTIS No: PB95-195020/HDM
Title: Human Factors Issues in Traffic Signing; Final research rept. 1991-92

77 of 202 User-Defined Format
NTIS No: PB95-194155/HDM
Title: ITS Institutional and Legal Issues Program: Review of the Travelaid Operational Test; Final rept. Jun-Oct 94

78 of 202 User-Defined Format
NTIS No: PB95-193470/HDM
Title: Hardware/Software Compatibility for Traffic Management/IVHS Systems; Interim research rept. Sep 93-Apr 94

79 of 202 User-Defined Format
NTIS No: PB95-876108/HDM
Title: Collision Avoidance Technology. (Latest citations from the INSPEC Database); Published Search

80 of 202 User-Defined Format
NTIS No: PB95-189536/HDM
Title: ITS Institutional and Legal Issues Program: Review of the Travelaid Operational Test; Final rept. Jun-Oct 94

81 of 202 User-Defined Format
NTIS No: PB95-188827/HDM
Title: Vehicle-to-Roadside Communications for Commercial Vehicle Operations: Requirements and Approaches

82 of 202 User-Defined Format
NTIS No: PB95-183497/HDM
Title: Transportation Environmental Issues: Air, Noise, Water, Mitigation Processes, and Alternative Fuels; Transportation research record

83 of 202 User-Defined Format
NTIS No: PB95-179131/HDM
Title: ITS Institutional and Legal Issues Program: Review of the SmarTraveler Operational Test; Final rept. Aug 93-Oct 94

84 of 202 User-Defined Format
NTIS No: PB95-871646/HDM
Title: Intelligent Vehicle Highway Systems (IVHS). (Latest citations from the INSPEC Database); Published Search

85 of 202 User-Defined Format
NTIS No: PB95-165890/HDM
Title: Trace Driven Driving Simulation: Towards Integration of External Lab with Simulator and the Integrated Study of Microscopic and Macroscopic Problems in IVHS: Emulation of the I-394 External Laboratory in a Driving Environment; Final rept

86 of 202 User-Defined Format
NTIS No: PB95-171401/HDM
Title: National Traffic Data Acquisition Conference (NATDAC '94) Proceedings. Volume 2. Held in Rocky Hill, Connecticut on September 18-22, 1994; Final rept

87 of 202 User-Defined Format
NTIS No: PB95-171393/HDM
Title: National Traffic Data Acquisition Conference (NATDAC '94) Proceedings. Volume 1. Held in Rocky Hill, Connecticut on September 18-22, 1994; Final rept

88 of 202 User-Defined Format
NTIS No: MIC-95-00310/HDM
Title: Intelligent vehicle-highway systems (IVHS): A synopsis

89 of 202 User-Defined Format
NTIS No: PB95-159802/HDM
Title: Variable Dynamic Testbed Vehicle Study. Volume 3. Appendixes; Final rept

90 of 202 User-Defined Format
NTIS No: PB95-159794/HDM
Title: Variable Dynamic Testbed Vehicle Study. Volume 2. Technical Results; Final rept

91 of 202 User-Defined Format
NTIS No: PB95-159786/HDM
Title: Variable Dynamic Testbed Vehicle Study. Volume 1. Executive Summary; Final rept

92 of 202 User-Defined Format
NTIS No: PB95-149217/HDM
Title: Examination of Intersection, Left Turn Across Path Crashes and Potential IVHS Countermeasures; Final rept. Jan-Jun 94

93 of 202 User-Defined Format
NTIS No: DE94018700/HDM
Title: Digital map and spatial database requirements for advanced traffic management systems

94 of 202 User-Defined Format
NTIS No: PB95-148177/HDM
Title: Review of the Literature on Obstacle Avoidance Maneuvers: Braking versus Steering

95 of 202 User-Defined Format
NTIS No: PB95-147021/HDM
Title: Traffic Data Management System for Navigation, Collision Detection, and Incident Detection; Final research rept. 1991-92

96 of 202 User-Defined Format
NTIS No: PB95-146395/HDM
Title: Feasibility of Real-Time Motorist Information Systems Using Computer Display Terminals in Urban Areas in Texas; Final research rept. Aug 92-Aug 93

97 of 202 User-Defined Format
NTIS No: PB95-146478/HDM
Title: Traffic Data Management System for Navigation, Collision Detection, and Incident Detection; Final rept. 1991-92

98 of 202 User-Defined Format
NTIS No: PB95-144267/HDM
Title: Economic and Policy Considerations of Advanced Public Transportation Systems (APTS): Assessing the Economic Feasibililty of APTS; Final rept. Jul 93-Oct 94

99 of 202 User-Defined Format
NTIS No: PB95-144259/HDM
Title: Economic and Policy Considerations of Advanced Public Transportation Systems (APTS): Background and Review of Evaluation Approaches; Final rept. Jul 93-Oct 94

100 of 202 User-Defined Format
NTIS No: PB95-143277/HDM
Title: Minnesota Intelligent Driving Environment Research (MINDER) Program; Final rept

101 of 202 User-Defined Format
NTIS No: PB95-141271/HDM
Title: OECD Seminar on Strategic Planning for Road Research Programs. Conference Proceedings. Held in McLean, Virginia and Williamsburg, Virginia on October 4-8, 1993

102 of 202 User-Defined Format
NTIS No: DE94014816/HDM
Title: Transportation planning: A virtual reality

103 of 202 User-Defined Format
NTIS No: PB95-128302/HDM
Title: Entry of Destinations into Route Guidance Systems: A Human Factors Evaluation; Master's thesis Jan 92-Dec 93 (Final)

104 of 202 User-Defined Format
NTIS No: DE94012327/HDM
Title: Feasibility of a driver performance data acquisition system

105 of 202 User-Defined Format
NTIS No: PB95-109278/HDM
Title: Analysis of Marketing and Pricing of Public Transportation; Final rept

106 of 202 User-Defined Format
NTIS No: DE94015660/HDM
Title: Concept definition of traffic flow wide-area surveillance

107 of 202 User-Defined Format
NTIS No: PB95-112280/HDM
Title: Making Things Work: Transportation and Trade Expansion in Western North America. Volume 7. Commissioned Special Reports. Transportation Technology Trends and North American Trade; Final rept. Mar-Sep 93

108 of 202 User-Defined Format
NTIS No: PB95-106993/HDM
Title: Examination of Signalized Intersection, Straight Crossing Path Crashes and Potential IVHS Countermeasures; Final rept. Oct 92-Apr 94

109 of 202 User-Defined Format
NTIS No: PB95-105557/HDM
Title: Backing Crashes: Problem Size Assessment and Statistical Description; Final technical rept

110 of 202 User-Defined Format
NTIS No: PB95-104899/HDM
Title: Examination of Unsignalized Intersection, Straight Crossing Path Crashes and Potential IVHS Countermeasures; Final rept. Feb 93-Apr 94

111 of 202 User-Defined Format
NTIS No: PB94-218666/HDM
Title: Examination of Single Vehicle Roadway Departure Crashes and Potential IVHS Countermeasures; Final rept. May 93-Apr 94

112 of 202 User-Defined Format
NTIS No: PB94-214756/HDM
Title: Information Infrastructure: Reaching Society's Goals. Report of the Information Infrastructure Task Force Committee on Applications and Technology; Special pub

113 of 202 User-Defined Format
NTIS No: PB94-214210/HDM
Title: Transit Planning and Research Reports: An Annotated Bibliography, July 1994

114 of 202 User-Defined Format
NTIS No: DE94012717/HDM
Title: Cost estimates for near-term depolyment of advanced traffic management systems. Final report; Progress rept

115 of 202 User-Defined Format
NTIS No: PB94-206745/HDM
Title: Surface Transportation Research and Development Plan. Volume 1; Report to Congress

116 of 202 User-Defined Format
NTIS No: PB94-206737/HDM
Title: Surface Transportation Research and Development Plan. Volume 2. Compendium of Program Abstracts; Report to Congress

117 of 202 User-Defined Format
NTIS No: PB94-204187/HDM
Title: Western States Transparent Borders Project: Description of Current State Practices, Nevada; Final technical rept

118 of 202 User-Defined Format
NTIS No: PB94-204161/HDM
Title: Western States Transparent Borders Project: Institutional Barriers and Recommended Actions, Nevada; Final technical rept

119 of 202 User-Defined Format
NTIS No: PB94-203296/HDM
Title: IVHS Institutional and Legal Issues Program: Review of the Travlink and Genesis Operational Tests; Final rept. Jun 93-Jan 94

120 of 202 User-Defined Format
NTIS No: PB94-201340/HDM
Title: Impact of Traffic Information: Dynamics in Route and Departure Time Choice; Doctoral thesis

121 of 202 User-Defined Format
NTIS No: N94-34038/7/HDM
Title: Intelligent Vehicle Control: Opportunities for Terrestrial-Space System Integration; Abstract Only

122 of 202 User-Defined Format
NTIS No: N94-34037/9/HDM
Title: Ground Vehicle Control at NIST: From Teleoperation to Autonomy

123 of 202 User-Defined Format
NTIS No: PB94-195914/HDM
Title: Recommendations on Selection of Vehicle-to-Roadside Communications Standards for Commercial Vehicle Operations

124 of 202 User-Defined Format
NTIS No: PB94-191988/HDM
Title: Western States Transparent Borders Project: Description of Current State Practices, Oregon; Final technical rept

125 of 202 User-Defined Format
NTIS No: PB94-191954/HDM
Title: Western States Transparent Borders Project: Description of Current State Practices, Idaho; Final technical rept

126 of 202 User-Defined Format
NTIS No: PB94-191798/HDM
Title: Western States Transparent Borders Project: Institutional Barriers and Recommended Actions, Wyoming; Final technical rept

127 of 202 User-Defined Format
NTIS No: PB94-191780/HDM
Title: Western States Transparent Borders Project: Description of Current State Practices - Wyoming; Final technical rept

128 of 202 User-Defined Format
NTIS No: PB94-191723/HDM
Title: Western States Transparent Borders Project. Institutional Barriers and Recommended Actions. Oregon; Final technical rept

129 of 202 User-Defined Format
NTIS No: PB94-191962/HDM
Title: Western States Transparent Borders Project: Institutional Barriers and Recommended Actions, Idaho; Final technical rept

130 of 202 User-Defined Format
NTIS No: PB94-188828/HDM
Title: Western States Transparent Borders Project: Institutional Barriers and Recommended Actions - Montana; Final technical rept

131 of 202 User-Defined Format
NTIS No: PB94-188281/HDM
Title: Western States Transparent Borders Project: Description of Current State Practices - Montana; Final technical rept

132 of 202 User-Defined Format
NTIS No: PB94-186111/HDM
Title: IVHS Institutional Issues and Case Studies: TravTek Case Study; Final rept. Jun 93-Jan 94

133 of 202 User-Defined Format
NTIS No: PB94-186103/HDM
Title: IVHS Institutional and Legal Issues Program: Review of the FAST-TRAC Operational Test; Final rept

134 of 202 User-Defined Format
NTIS No: PB94-182482/HDM
Title: Automated Vehicle for Enhanced Work Crew Safety

135 of 202 User-Defined Format
NTIS No: PB94-187101/HDM
Title: IVHS Institutional Issues and Case Studies. HELP/Crescent Case Study; Final rept. Jun 93-Jan 94

136 of 202 User-Defined Format
NTIS No: PB94-186160/HDM
Title: IVHS Institutional Issues and Case Studies. ADVANCE Case Study; Final rept. Jun 93-Jan 94

137 of 202 User-Defined Format
NTIS No: PB94-186152/HDM
Title: IVHS Institutional Issues and Case Studies: Westchester Commuter Central Case Study; Final rept. Jun 93-Jan 94

138 of 202 User-Defined Format
NTIS No: PB94-186145/HDM
Title: IVHS Institutional Issues and Case Studies. Advantage I-75 Case Study; Final rept. Jun 93-Jan 94

139 of 202 User-Defined Format
NTIS No: PB94-184322/HDM
Title: IVHS Institutional Issues and Case Studies; Analysis and Lessons Learned; Final rept. Jun 93-Jan 94

140 of 202 User-Defined Format
NTIS No: PB94-184025/HDM
Title: Western States Transparent Borders Project: Description of Current State Practices, Utah; Final technical rept

141 of 202 User-Defined Format
NTIS No: PB94-183514/HDM
Title: IVHS Institutional Issues and Case Studies. TRANSCOM/TRANSMIT Case Study; Final rept. Jun 93-Jan 94

142 of 202 User-Defined Format
NTIS No: PB94-179546/HDM
Title: Nissan Technical Review, No. 34, December 1993

143 of 202 User-Defined Format
NTIS No: N94-30577/8/HDM
Title: Update on Lab Rover: A Hospital Material Transporter

144 of 202 User-Defined Format
NTIS No: AD-A280 077/9/HDM
Title: Integration of Predictive Routing Information with Dynamic Traffic Signal Control; Doctoral thesis

145 of 202 User-Defined Format
NTIS No: PB94-885332/HDM
Title: Collision Avoidance Technology. (Latest citations from the INSPEC Database); Published Search

146 of 202 User-Defined Format
NTIS No: PB94-171972/HDM
Title: Rear-End Crashes: Problem Size Assessment and Statistical Description; Technical rept

147 of 202 User-Defined Format
NTIS No: PB94-134731/HDM
Title: Advanced Vehicle/Highway Systems and Urban Traffic Problems; Staff paper

148 of 202 User-Defined Format
NTIS No: PB94-169620/HDM
Title: Advanced Public Transportation Systems: The State of the Art, Update '94; Final rept

149 of 202 User-Defined Format
NTIS No: PB94-158466/HDM
Title: Development of Software Standards for Advanced Transportation Control Systems. Final Report. Volume 1. A Model for Roadway Traffic Control Software

150 of 202 User-Defined Format
NTIS No: PB94-157914/HDM
Title: Potential Safety Applications of Advanced Technology; Final rept. Sep 90-Jun 93

151 of 202 User-Defined Format
NTIS No: PB94-156924/HDM
Title: Nationally Coordinated Program of Highway Research, Development, and Technology. Annual Progress Report Fiscal Year 1993; Rept. for 1 Oct 92-30 Sep 93

152 of 202 User-Defined Format
NTIS No: PB94-156155/HDM
Title: Western States Transparent Borders Project: Implementing Transparent Borders - Recommended Actions; Final rept

153 of 202 User-Defined Format
NTIS No: PB94-160181/HDM
Title: Graduate Student Papers on Advanced Surface Transportation Systems

154 of 202 User-Defined Format
NTIS No: PB94-156734/HDM
Title: Institutional Barriers to the Adoption of Electronic Data Collection and Interchange as It Relates to Commercial Vehicles; Final rept

155 of 202 User-Defined Format
NTIS No: PB94-151594/HDM
Title: Design of a Demonstration Program to Illustrate the Benefits of Transportation System Technological Innovation. A New England Example. Final Report for Phase 3; Rept. for 1 Sep 91-31 Dec 92

156 of 202 User-Defined Format
NTIS No: PB94-145554/HDM
Title: Intelligent Vehicle Highway Systems; Transportation research record

157 of 202 User-Defined Format
NTIS No: PB94-144292/HDM
Title: Investigation of the Performance of a Headway Control System for Commercial Vehicles; Technical rept

158 of 202 User-Defined Format
NTIS No: PB94-134202/HDM
Title: Examination of Backing Crashes and Potential IVHS Countermeasures; Final rept. Sep 92-Mar 93

159 of 202 User-Defined Format
NTIS No: PB94-866381/HDM
Title: Intelligent Vehicle Highway Systems (IVHS). (Latest citations from the INSPEC Database); Published Search

160 of 202 User-Defined Format
NTIS No: PB94-134129/HDM
Title: Daily Variability of Commuter Decisions: Dallas Survey Results; Interim research rept

161 of 202 User-Defined Format
NTIS No: DE93018763/HDM
Title: Travel to Florence, Italy to attend the 24th International Symposium on automative technology and automation, May 20--24, 1991. Foreign trip report, May 18--26, 1991

162 of 202 User-Defined Format
NTIS No: DE93017889/HDM
Title: Potential of intelligent vehicle highway systems for enhanced traveler security

163 of 202 User-Defined Format
NTIS No: PB94-112612/HDM
Title: IVHS and Rural Road Safety: A Prototype ATIS; Technical rept

164 of 202 User-Defined Format
NTIS No: PB94-106408/HDM
Title: Freeway Operations and High-Occupancy Vehicle Systems; Transportation research record

165 of 202 User-Defined Format
NTIS No: PB94-103926/HDM
Title: Assessment of IVHS Countermeasures for Collision Avoidance: Rear-End Crashes; Final rept

166 of 202 User-Defined Format
NTIS No: PB93-219608/HDM
Title: Cost Estimates for Selected California Smart Traveler Operational Tests. Volume 2. Appendices

167 of 202 User-Defined Format
NTIS No: PB93-219590/HDM
Title: Cost Estimates for Selected California Smart Traveler Operational Tests. Volume 1. Technical Report

168 of 202 User-Defined Format
NTIS No: PB93-216349/HDM
Title: Investigation of Least Cost Approach to Long Term Congestion Reduction in Urban Areas; Technical rept

169 of 202 User-Defined Format
NTIS No: DE93010289/HDM
Title: Automotive technology and automation. Foreign trip report, May 30--June 14, 1992

170 of 202 User-Defined Format
NTIS No: PB93-208064/HDM
Title: Western States Transparent Borders Project: Description of Current State Practices, Washington; Final technical rept

171 of 202 User-Defined Format
NTIS No: PB93-182640/HDM
Title: NHTSA IVHS Plan

172 of 202 User-Defined Format
NTIS No: PB93-183358/HDM
Title: Department of Transportation's IVHS Strategic Plan. Report to Congress

173 of 202 User-Defined Format
NTIS No: PB93-183853/HDM
Title: Use of Advanced Technologies in Indiana Department of Transportation (Revised); Final rept

174 of 202 User-Defined Format
NTIS No: PB93-178978/HDM
Title: Urban Transportation Planning in the United States. An Historical Overview. Revised Edition, November 1992

175 of 202 User-Defined Format
NTIS No: PB93-167625/HDM
Title: National Traffic Data Acquisition Conference Proceedings. Held in Sacramento, California on October 25-29, 1992; Final rept

176 of 202 User-Defined Format
NTIS No: MIC-93-01442/HDM
Title: Public/private opportunities in Intelligent Vehicle/Highway Systems (IVHS): Seminar presentations

177 of 202 User-Defined Format
NTIS No: PB93-134492/HDM
Title: Vehicle Routing, Traveler ADIS, Network Modeling, and Advanced Control Systems; Transportation research record

178 of 202 User-Defined Format
NTIS No: PB93-143063/HDM
Title: Intelligent Vehicle Highway Systems: A Call for User-Centered Design

179 of 202 User-Defined Format
NTIS No: PB93-131944/HDM
Title: Advanced Public Transportation Systems: A Bibliography with Abstracts, 1985-1991; Final rept

180 of 202 User-Defined Format
NTIS No: PB93-130177/HDM
Title: IVHS and the Truckmaker: Identifying the Need for Research (Revised); Final rept. 1 Oct 91-30 Sep 92

181 of 202 User-Defined Format
NTIS No: PB93-119675/HDM
Title: Report of Mechanical Engineering Laboratory No. 156. Studies on the Intelligent Vehicle

182 of 202 User-Defined Format
NTIS No: DE92019943/HDM
Title: Simulation and intelligent vehicle highway systems

183 of 202 User-Defined Format
NTIS No: PB93-109841/HDM
Title: IVHS and the Truckmaker: Identifying the Need for Research; Final rept. 1 Oct 91-30 Sep 92

184 of 202 User-Defined Format
NTIS No: PB93-107654/HDM
Title: California Smart Traveler System; Final rept

185 of 202 User-Defined Format
NTIS No: PB92-218304/HDM
Title: Advanced Public Transportation Systems: The State of the Art Update '92; Final rept. Jan-Mar 92

186 of 202 User-Defined Format
NTIS No: PB92-206671/HDM
Title: Survey of the Trucking Industry's Preferences for IVHS; Final rept

187 of 202 User-Defined Format
NTIS No: PB92-193291/HDM
Title: National High-Occupancy Vehicle (HOV) Facilities Conference (5th). HOV Facilities: Coming of Age. Held in Seattle, Washington on April 28-May 1, 1991

188 of 202 User-Defined Format
NTIS No: PB92-191923/HDM
Title: Communications in Intelligent Vehicle Highway Systems. Part 2; Interim research rept. Jan 90-Aug 91

189 of 202 User-Defined Format
NTIS No: PB92-191915/HDM
Title: Communications in Intelligent Vehicle Highway Systems. Part 1; Interim research rept. Jan 90-Aug 91

190 of 202 User-Defined Format
NTIS No: PB92-187996/HDM
Title: Planning, Design and Operations of Transportation Facilities in Houston; Final research rept. Sep 87-Aug 91

191 of 202 User-Defined Format
NTIS No: PB92-179308/HDM
Title: Highway Systems, Human Performance, and Safety, 1991; Transportation research record

192 of 202 User-Defined Format
NTIS No: DE92007729/HDM
Title: Proceedings of a workshop on intelligent vehicle highway systems and advanced transportation technologies

193 of 202 User-Defined Format
NTIS No: PB92-140151/HDM
Title: Advanced Vehicle and Highway Technologies

194 of 202 User-Defined Format
NTIS No: PB92-139971/HDM
Title: Assessment of Advanced Technologies for Relieving Urban Traffic Congestion; Final rept

195 of 202 User-Defined Format
NTIS No: MIC-92-00193/HDM
Title: Transportation Technology Perspectives: The 1990s and beyond: Conference proceedings

196 of 202 User-Defined Format
NTIS No: AD-A244 038/6/HDM
Title: Proceedings of the International Wire and Cable Symposium (40th) Held in St. Louis, Missouri on November 18-21, 1991

197 of 202 User-Defined Format
NTIS No: MIC-91-05404/HDM
Title: Informatics: Vehicle location, communications, control and monitoring systems under development in Ontario

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  198 of 202  User-Defined Format
 NTIS No: PB92-104686/HDM
 Title: Optimal Diversion Strategies for a Modified Urban Network. Final
Project Report

  199 of 202  User-Defined Format
 NTIS No: PB92-101641/HDM
 Title: Assessment of Advanced Technologies for Transit and Rideshare
Applications; Final rept

  200 of 202  User-Defined Format
 NTIS No: PB91-224451/HDM
 Title: Application of a Knowledge-Based Expert System in the Management of
Congestion (Region 1 University Transportation Center); Final rept. 1 Sep 89-30
Dec 90

  201 of 202  User-Defined Format
 NTIS No: PB90-267519/HDM
 Title: Driving Control Method of Automated Vehicle with Machine Vision

  202 of 202  User-Defined Format
 NTIS No: PB90-205683/HDM
 Title: Report to Congress on Intelligent Vehicle-Highway Systems; Staff study
1989-90
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Question. Have you transferred some existing positions or FTE's from other parts of FHWA to help conduct the ITS program?

Answer. The ITS Joint Program Office (JPO) was established within US DOT without any increases in overall staffing levels. Of the 18 Full Time Employees for the JPO, 10 came from Safety and Systems Applications along with their program functions; three came from Research and Development; two came from Motor Carrier Safety; and three came from elsewhere in US DOT (outside of FHWA).

Question. Please provide a list of all the ITS projects receiving congressional earmarks by the fiscal year the earmarks were provided, the amount provided in each earmark, and the amount of unobligated funds for each of the earmarked IVHS projects by fiscal year. What is the status of each project with more than $2 million of unobligated funds?

Answer. The attached tables give earmarks and unobligated balances for ITS projects for Fiscal Years 1992, 1993, 1994, 1995, and 1996. Footnotes provide status of projects with over than $2 million unobligated.

Fiscal Year 1992 Earmarks General Operating Expense (GOE) Funds	Amount Earmarked (Millions)	Amount Unobligated as of 6/5/96
Advantage I-75	$ 1.0	$ 0.00
ATMS, Oakland Co.	10.0	0.00
Chicago (ADVANCE)	7.5	0.00
Crescent	2.0	0.00
Detroit	0.5	0.00
Miami	5.0	0.00
GuideStar, MN	10.0	0.00
Houston	2.0	0.00
Philadelphia	2.0	0.00
Electric Vehicle, CA	1.5	0.00
SmartCorridor, CA	1.0	0.00
TRANSCOM, NY/NJ	3.0	0.00
MAGIC, NY/NJ	4.0	0.00
Toll Road, ETTM, NJ	25.0	0.00
Int. Corr. Mgmt., NJ/Phil.	6.0	0.00
Signal Computerization, NJ	6.0	0.00
Southern State Parkway, NY	20.0	0.00
Spellman Parkway, MD	0.3	0.00
Maryland Arterials	2.2	0.00
TOTALS	**$109.0**	**$ 0.00**

Fiscal Year 1993 Earmarks ISTEA and (GOE) Funds	Amount Earmarked (Mllns)	Amount Unobligated as of 6/5/96
NE Corridor (MD to CT)	$10.500	$ 0.000
Gary Corridor, IN	1.400	0.750
Houston Corridor	3.105	0.000
Anaheim Corridor	4.200	0.000
Smart Corridor	4.900	0.000
Chicago Corridor	0.500	0.420
Milwaukee Corridor	0.500	0.420
San Diego, CA	2.100	0.000
Chicago (ADVANCE)	4.550	0.000
Miami-Ft. Lauderdale	2.240	0.000
Seattle, WA	3.500	0.000
Detroit, MI	0.700	0.000
GuideStar, MN	8.750	0.000
Orlando (TravTek)	0.500	0.000
Help/Cresent	0.525	0.000
Advantage I-75	1.400	0.000
I-80 CVO	0.700	0.000
Oakland County (FAST-TRAC)	10.500	0.000
Sutter County, CA	1.750	0.000
Fairfax County, VA	5.250	0.000
NJ (Police Comm. Center)	3.500	0.000
Signal Computerization, NJ	7.000	0.000

Toll Road, ETTM, NJ	7.000	0.000
MAGIC, NY/NJ	6.280	0.000
TRANSCOM, NY/NJ	2.400	0.000
Southern State Parkway, NY	14.000*	0.000
New York State Thruway	5.250	0.000
ISTEA Total	**113.000**	**15.590**
George Mason University	1.600	0.000
Humphrey Institute	.760	0.000
GOE Total	**2.360**	**0.000**
Grand Total	**$115.360**	**$15.590**

* $13.95 was rescinded from this project in FY 95.

Fiscal Year 1994 Earmarks ISTEA and (GOE) Funds	**Amount Earmarked (Mllns)**	**Amount Unobligated as of 4/18/95**
Albuquerque, NM (Sandia Labs)	$ 2.0	$ 0.0
Bronx/N. Manhattan ATMS	2.4	0.0
Buffalo/Niagara Falls ATMS	2.0	0.0
Charlotte, NC (CARAT)	6.0	0.0
Chicago, IL (ADVANCE)	6.0	0.0
Gary-Chicago-Milwaukee Corridor	2.5	0.0
George Mason Univ., VA	2.0	0.0
Houston, TX Corridor	2.0	0.0
Johnson City, TN	2.5	0.0

Minnesota (GuideStar)	6.0	0.0
Montgomery County, MD ATMS	1.0	0.0
NYS Thruway (elec. tolls)	6.4	0.0
NE Corridor (MD to CT)	1.0	0.0
Oakland Co., MI (Fast-Trac)	20.0	0.0
San Diego, CA	5.0	0.0
Seattle, WA (Smohomish)	1.5	0.0
Southeast Michigan (SMART)	4.5	0.0
SR 9, NJ (Smart Bus)	1.5	0.0
Toll Road ETTM, Atl. City, NJ	3.0	0.0
TRANSCOM, NY/NJ	2.2	0.0
ISTEA Total	**79.5**	**0.0**
IOWA CVO	2.0	0.0
Humphrey Institute	.95	0.0
GOE Total	**2.95**	**0.0**
Grand Total	**82.45**	**0.0**

Fiscal Year 1995 Earmarks ISTEA Funds	Amount Earmarked (Mllns)	Amount Unobligated as of 6/5/96
Minnesota (GuideStar)	$ 6.825	$ 0.0

Oakland County, MI (Fast-Trac)	15.000	0.0
Charlotte, NC (CARAT)	4.500	0.0
Houston, Texas	2.250	0.0
Lower Hudson Valley, NY	1.500	0.0
I-95 Corridor	7.500	0.0
Bronx-Northern Manhattan	2.250	0.0
University of North Dakota	0.750	0.0
Hazardous material trans. safety	1.500	0.0
Detroit, Michigan (SMART)	7.500	0.0
Santa Teresa, NM crossing	1.680	0.0
Johnson City, Tennessee	3.750	3.750[13]
TRANSCOM, NY/NJ	2.625	0.0
Syracuse, NY congestion management	1.500	0.0
Brooklyn/Bronx/Queens signalization	3.750	0.0
National Trans. Center, Oakland, NY	1.870	0.0
Advanced railroad/highway crossings	2.625	0.0

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[13] Funds have been allocated to FHWA's field office; partnership agreement with the State is in process; obligation of funds expected by the end of FY 1996.

New Jersey Turnpike	2.625	0.0
Green light CVO project, OR	6.000	0.0
ISTEA Total	**$76.000**	**$3.750**

Fiscal Year 1996 Earmarks ISTEA Funds	Amount Earmarked (Millions)	Amount Unobligated as of 6/5/96
I-10 Mobile, Alabama	$3.000	$3.000[14]
Hazardous materials fleet management and monitoring system (NIER)	2.500	2.500[2]
Green light CVO project, Oregon	7.000	7.000[2]
Capital beltway	4.000	4.000[2]
Houston, Texas	2.200	2.200[1]
Syracuse, New York congestion management	1.500	0.000
I-95 Corridor	3.500	3.500[2]
Johnson City, Tennessee	1.500	1.500

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[1] Funds allocated to FHWA's field office; partnership agreement with the State in process; obligation of funds expected by the end of FY 1996.

[2] Funding for this project is anticipated to be allocated to FHWA's field office in the near future; obligation of funds expected by the end of FY 1996.

Texas Transportation Institute	0.600	0.600
University of North Dakota	1.000	1.000
I-675/SR844/Col. Glenn, Fairborn, Ohio	1.000	1.000
Paralympiad	1.000	0.000
Santa Teresa border crossing, New Mexico	0.900	0.900
Western Transportation Institute, Montana	1.000	1.000
TRANSCOM, New York/ New Jersey	1.500	1.500
New York State Thruway	1.500	1.500
National Transportation Center, Oakdale, New York	2.000	2.000
Advanced railroad/highway crossings	1.250	1.250
Minnesota GuideStar	2.000	2.000
Salt Lake City	2.000	2.000
ISTEA Total	**$40.950**	**$38.450**

Question. How is FHWA ensuring that Metropolitan Planning Organizations (MPOs) are considering the need for ITS when the MPOs prepare their priority lists for funding? What documented evidence do you have that this is occurring? How are you seeking to convince MPOs and States to include ITS?

Answer. In each year since the enactment of ISTEA, the FHWA has improved its efforts to assist and encourage MPOs' transportation planning activities. The FHWA provides a wide range of training and education materials to MPOs regarding planning techniques and practices. The focus of many of those efforts has been on congestion management where ITI components form a bulk of the management strategies. Indeed, that planning guidance and process has been a driving force in much of the ITI *component* deployment now underway.

It is a fact that much of the planning for ITS to date has occurred outside of the normal MPO process, although significant efforts have been made to insure MPO participation before an EDP grant is awarded. Part of the reason for this is that the people concerned with the day-to-day "operations" of a system (whether that be traffic, emergency response, transit or snow removal) are not normally represented in an MPO forum. Recognizing that the planning for ITS needed to be mainstreamed, we are developing a handbook on procedures and practices for considering of ITS solutions to transportation problems through the metropolitan planning process. A draft of this handbook will be completed within the next month. It will form the basis for a major training course for State and local governments and MPOs during FY 1997. We are also actively engaged in discussions with the planning leadership in both FHWA and FTA to develop additional approaches to mainstream the planning and development of ITS systems into the regular planning process.

In the field, we are in fact beginning to see results of MPOs using the results of EDPs for development of the Transportation Improvement. Early Deployment Planning studies regarding Detroit, Denver, and St. Louis identified ITS projects and activities that are now being funded and implemented by these communities through the regular metropolitan planning process. Even without EDP studies, cities like Seattle, Minneapolis, St. Paul, and Los Angeles have incorporated major ITS systems into their long range transportation plan and have put in place some very impressive systems. These systems could not have been installed without the cooperation and full support of all parties.

Question. In Senate Report 103-310, the Committee encouraged FHWA to solicit ITS projects that advance this Nation's energy and environmental goals. Please describe any such projects that have been initiated since the report was issued, and provide a status report on the progress of these projects. Also, please provide the amount and nature of any awards to date.

Answer. While no new ITS operational test projects have been selected since Senate Report 103-310 was issued last July, we have three on-going ITS operational tests that address monitoring environmental conditions and vehicles. Two of the projects - one in Denver, Colorado and other in Ada County, Idaho - are investigating systems that non-intrusively test the emissions of individual vehicles to identify high-emitters of pollutants. These projects also include procedures for inducing voluntary remedial actions. The third project involved using Light Intensified Detection and Ranging (LIDAR) techniques to scan a wide area in the northwest suburbs of Minneapolis to detect pollution levels. The LIDAR sensor was used to evaluate the impact of a portable traffic management system on changes in pollutant levels. The amount of Federal funding for these projects is $304,663 for Denver, $253,000 for Idaho, and $500,000 for Minnesota, all in FY 1994.

Since that report we have issued a solicitation for two to three model deployment sites for integrated travel management and information. We believe that these efforts will meet the intent of the Committee's suggestion, since these projects all involve technology that will smooth the flow of traffic and in some cases speed it up which generally results in both energy and air pollution savings. The projects also involved providing consumers with real time transit and traffic information in an effort to encourage drivers to use transit on particularly congested days -- also an energy and pollution savings.

Question. Two years ago, the Committee directed you to establish a system to collect data on the expenditure of Federal funds for ITS deployment projects. Please bring us up to date on your response to this directive.

Answer. We are working with other DOT offices to identify and track ITS uses of Federal-Aid funds. The FHWA Office of Program Review has just completed a review of "Tracking Federal-Aid Expenditures on Traffic Management/ITS Through FMIS," and recommendations from that review should result in improved ways of identifying and gathering ITS expenditures.

The Federal Highway Administration, using Oak Ridge National Laboratory, has developed a prototype database for tracking ITS deployments. As a result of the review of the prototype, FHWA has developed a set of ITS technologies to be included in the deployment database. The technologies are those that define the Intelligent Transportation Infrastructure (ITI) for ITS and, thus, are vital to any ITS initiative in an urban area. The completed database can be accessed through the World Wide Web at http://128.169.84.18/ . A list of metrics, based on both their ability to provide good information value and their collection costs, have been developed, for assessing the progress of ITI deployment is being developed.

Question. The Committee has supported funding for research on institutional issues for several years now. Please specify precisely what has been learned as a result of this expenditure. In your response, please deal separately with each of the following topics: streamline the procurement process; resolve privacy issues; address liability concerns especially those dealing with the AHS; improve the compatibility of State, local, and private sector contracting with the deployment of IVHS; explore efforts to foster franchising arrangements; and decrease marketing constraints.

Answer. In the following paragraphs we present key findings on the topics requested from the several institutional studies that we have carried out.

Procurement. Many of the procurement process-related concerns raised by participants in ITS operational tests resulted from their unfamiliarity or disagreement with basic federal procurement requirements. Procurements made under contracts awarded directly by the US DOT have benefited from greatly increased procurement flexibility available to Federal agencies under recently enacted government-wide procurement reform legislation. However, most ITS deployment will increasingly be accomplished within existing Federal-Aid grant programs to States which will be governed by state and local government procurement processes. In many cases these are less flexible than Federal requirements. Significant education and change may be required here. We are in fact finding that State DOTs are likely to be better served if they approach ITI purchases as though they were an information resources management system (IRM) contract rather than a highway construction contract.

Contracting for ITS Deployment: US DOT grantees' contracting legal authority, procurement procedures, and agency staff capabilities vary widely. Some state agency grantees are only authorized to award firm fixed-price contracts and are limited to rigid competitive sealed bidding procedures. A federal statutory provision requires the states, absent a formal waiver, to use competitive bidding requirements for contracts for highway construction and to award these contracts to the lowest responsive bidder.

Sealed bid procedures are not appropriate for the acquisition of custom-designed ITS projects. Negotiations between the grantee and offerors are needed if additional refinements of the offered ITS are needed to make them fully responsive to the grantee's requirement, if the price will vary depending on the ultimate configuration offered, or if patentable technology may be produced under the contract. Negotiations and the use of more flexible types of contract instruments are needed if the grantee desires to establish a mutually beneficial partnering relationship with its vendors. The use of cost-reimbursable contracts instead of firm-fixed price contracts raises issues as to the allowability of costs and the reliability of the contractor's accounting for costs incurred.

To address the wide variety of State procurement practices and to promote consistent procurement practices within a state, the American Bar Association released a model state procurement code in 1979. Fifteen States and numerous local governments have adopted the model code in some form. The model code authorizes the use of a range of contract award procedures and allows for use of cost-reimbursement contracts. Even in those States which have used the model code, however, enacting legislation has often modified the model to suit state needs. The remaining 35 States lack even this degree of consistency.

Privacy. Particular issues relating to the secondary use of information obtained from ITS technologies have been identified. In that effort a survey found that a vast majority of consumers either had no concern or concerns that were easily mitigated. A small minority of consumers for whom privacy is a driving force in their personal lives will likely remain concerned. Mitigation includes voluntary subscription to the service, destruction of data within moments of its use or storage of data in aggregate format to avoid individual identification.

Because the information obtained by the technologies could have commercial or other value, truck companies have some concern that competitors may acquire strategic business information. Truck drivers have expressed some concern personal trip data be protected from exploitation.

Some States and local authorities have already developed measures designed to allay fears and prevent misuse. ITS America has adopted asset of fair information and privacy principles as part of its education program. Other recommendations for legislative initiatives, policy mandates, and design considerations which take privacy into account are being discussed.

Liability. The implementation of ATIS and ATMS, which communicate real-time data to drivers and system managers, has not raised particular liability concerns. Vendors of ATIS appear to have taken reasonable precautions to minimize accident risks resulting from use of their systems. The introduction of automation to traffic management is not expected to alter the present allocation of liability for accidents caused by these systems. There is greater concern when automated systems (AVCS) take control of some aspect of vehicle operation. Automobile manufacturers have expressed serious concern about the potential liability of several crash avoidance features. That liability is the same liability that makes the companies risk-adverse in bringing out any new technology. ITS America has established a liability task force within its Legal Issues Committee to evaluate these liability concerns in more detail.

Franchising. The number of operators sustainable in the defined market is a key issue. Strong economies of scale will limit the number of operators, regardless of the number of franchises awarded. Market area and service definition are critical to avoid killing potential competition while still allowing the franchise economic viability. Franchise term and levels of service will affect the anticipated speed of technology change; technological innovation is difficult to sustain once a franchise is in place and insulated from competition. RFPs must be artfully written and yield a binding, economically viable venture for the private bidder. ATMS is likely to be a purely public good with limited or no revenue potential, while ATIS appears to have potential as a private venture in open competition .

Marketing. The major constraint to marketing is the lack of visibility or understanding of ITS. Increasing the awareness of ITS by elected and appointed public officials and the general public is key to addressing this issue. A systematic approach to educate these groups and to broaden their experience of ITS is needed. Also training staff at State and local transportation agencies and MPOs is another way to increase the visibility of ITS.

Question. Please list the major contracts and reports that have been issued as a result of the Department's institutional ITS studies activity. How much money are you spending on this area during FY 1996 and proposed for FY 1997? Please breakdown the use of these monies and distinguish between ISTEA and GOE funds.

Answer. **Institutional and Legal Issues**

Searching for Solutions - Public and Private Sector Roles in Intelligent Vehicle-Highway Systems (IVHS) Deployment, Summary of Seminar Proceedings, Walcoff & Associates, August 1992.

IVHS Institutional Issues - Identification and Definition of Institutional Issues, Volpe National Transportation Systems Center, November 1992.

Legal Constraints to the Research, Development, and Deployment of IVHS Technology in the United States, The University of Michigan Law School, December 1992.

IVHS Public/Private Partnerships: Managing the Legal Issues, Workshop Proceedings, IVHS America Legal Issues Committee and the Federal Highway Administration, January 1993.

Institutional Impediments to Metropolitan Traffic Management Coordination, Booz · Allen & Hamilton, Inc., Volpe National Transportation Systems Center, September 1993.

IVHS and Antitrust: A Preliminary Assessment, Stephen Calkins, September 1993.

Legal Analysis for the Nontechnical Constraints Report to Congress; Nossaman, Guthner, Knox and Elliott; December 1993:

Advanced Traffic Management Systems Tort Liability Issues

Advanced Vehicle Control Systems Potential Tort Liability for Developers, December 1993.

Intellectual Property Rights and the National IVHS Program

Intelligent Vehicle-Highway Systems and State Sovereign Immunity for Torts

Possible Impediments to Development of Advanced Traveler Information Systems: An Analysis of Potential Tort Liability

Privacy Implications Arising from Intelligent Vehicle-Highway Systems, Robert Belair, December 1993.

Procurement Issues in IVHS Development and Deployment, Procurement Task Force of the Legal Issues Committee of IVHS America, undated.

Workshop on IVHS and Intellectual Property, Federal Highway Administration and IVHS America, January 1994.

Assessment of Institutional and Legal Issues in ITS Operational Tests, Volpe National Transportation Systems Center:

IVHS Institutional Issues and Case Studies - ***ADVANCE*** *Case Study,* Science Applications International Corporation, April 1994.

IVHS Institutional Issues and Case Studies - ***Advantage I-75*** *Case Study,* Science Applications International Corporation et al. April 1994.

IVHS Institutional Issues and Case Studies - ***Analysis and Lessons Learned,*** Science Applications International Corporation. April 1994.

IVHS Institutional Issues and Case Studies - ***HELP/Crescent*** *Case Study,* Science Applications International Corporation. April 1994.

IVHS Institutional Issues and Case Studies - ***TRANSCOM/TRANSMIT*** *Case Study,* Science Applications International Corporation. April 1994.

IVHS Institutional Issues and Case Studies - ***TravTek*** *Case Study,* Science Applications International Corporation et al. April 1994.

IVHS Institutional Issues and Case Studies - ***Westchester Commuter Central*** *Case Study,* Science Applications International Corporation. April 1994.

IVHS Institutional and Legal Issues Program - Review of the ***FAST-TRAC*** *Operational Test,* June 1994.

IVHS Institutional and Legal Issues Program - Review of the ***Travlink and Genesis*** *Operational Tests,"* June 1994.

ITS Institutional and Legal Issues Program - Review of the ***SmarTraveler*** *Operational Test,* December 1994.

ITS Institutional and Legal Issues Program - Review of the ***TravelAid*** *Operational Test,* January 1995.

ITS Institutional and Legal Issues Program - Review of the ***Houston Smart Commuter*** *Operational Test,* June 1995.

ITS Institutional and Legal Issues Program - Review of the ***SaFIRES*** *Operational Test,* June 1995.

ITS Institutional and Legal Issues Program - Analysis of ITS Operational Tests - ***Findings and Recommendations,*** September 1995.

Nontechnical Constraints and Barriers to Implementation of Intelligent Vehicle-Highway Systems, A Report to Congress, U.S. Department of Transportation, June 1994.

Partnerships in the Implementation of ITS; Workshop Reference Material; Klick, Kent and Allen, Inc.; 1994

Privacy and Intelligent Transportation Systems - Legal Research Reports, University of Santa Clara Law School, March 1995:
"Examples of How IVHS Architecture Decisions Affect Personal Privacy"

"IVHS Electronic Communication Service Providers and Application of the Electronic Communications Privacy Act to IVHS"

"Analysis of State Laws Protecting Computer Systems"
"ITS and the Fourth Amendment"
"Private Vehicles: An Oxymoron"
"Playing Chicken: Would IVHS Consent Requirements Constitute an Unlawfully Coercive Game of Who Blinks First?"

"Privacy Concerns about IVHS Outside the United States"
"The Intelligent Vehicle-Highway System and Applicable European Legislation."

Analysis of U.S. DOT-sponsored Reports on Non-Technical Issues, Volpe National Transportation Systems Center, January 1996.

Public Acceptance and User Response to ATIS Products and Services: The Use of Travel Simulators to Investigate the Response to Traffic Information, Massachusetts Institute of Technology, Volpe National Transportation Systems Center, December 1993.

Public Acceptance and User Response to ATIS Products and Services: Modeling Framework and Data Requirements, Massachusetts Institute of Technology, Volpe National Transportation Systems Center, December 1993.

ATIS Market Research: A Survey of Operational Tests and University and Government Research, Volpe National Transportation Systems Center, March 1994.

Impacts of ITS Deployment on U.S. Business Opportunities, Employment, and International Competition: A Statistical Summary, Volpe National Transportation Systems Center, January 1995.

Energy and Environmental Assessments
Transportation, Information Technology, and Public Policy - Institutional and Environmental Issues in IVHS; Proceedings; George Mason University and University of California, Davis; April 1992.

Qualitative Assessment of IVHS Emission and Air Quality Impacts, Jack Faucett Associates, Volpe National Transportation Systems Center, July 1993.

National Policy Conference on Intelligent Transportation Systems and the Environment, Conference Papers, University of Minnesota, June 1994.

National Policy Conference on Intelligent Transportation Systems and the Environment, Conference Proceedings, George Mason University, June 1994.

Development of an Emissions, Fuel Economy, and Drive Cycle Estimation Model for IVHS Benefits Assessment Framework, Sierra Research, Volpe National Transportation Systems Center, July 1994.

IVHS and the Environment in Urban Areas, University of Minnesota, October 1994.

Modal Emissions and Fuel Consumption Models: State of Development, Concepts, and Issues, Volpe National Transportation Systems Center, May 1995.

An Environmental Evaluation Guidebook for ITS Deployments and Field Tests, Volpe National Transportation Systems Center, October 1995.

The Need for a Guidebook on NEPA Requirements When Deploying ITS: Preliminary Investigation, Volpe National Transportation Systems Center, December 1995.

Socioeconomic Issues

IVHS Staffing and Educational Needs, The Urban Institute, September 1993.

IVHS Institutional Issues Research, George Mason University, December 1994.

Overcoming Barriers to IVHS - Lessons from Other Technologies, The Urban Institute, February 1995.

ITS Societal Impacts: Current Knowledge and Research Needs, Volpe National Transportation Systems Center, May 1995.

Question. Please update the Committee on the development of training courses by the National Highway Institute for the ITS Program, specifying the number and type of courses that have been distributed, completed, and planned as well as those under development. Please identify specific FY 1995, FY 1996, and FY 1997 allocations for this purpose, indicating both ISTEA and GOE funds."

Answer. The following NHI courses have been previously completed and distributed; however, they are scheduled to be upgraded to support the ITS program with planned presentations in FY 1997 and beyond:

13305--Highway Capacity and Quality of Flow
13310--Computerized Traffic Signal Systems
13328--Traffic Control Software and Signalization
13342--Human Factors: Principles for Highway, Traffic and Design Engineers
13345--Traffic Management Strategies
13353--Improved Highway Travel Considerations for an Aging Society
13366--TRAF-FRESIM
13367--TRAF-CORFLO
13368--Traffic Models Overview

13369--Design and Application of Travel Demand Management Techniques including Telecommuting
13371--Design and Applications of Telecommuting Projects
13372--High Occupancy Vehicle Facilities
13373--Intelligent Transportation System (ITS) Planning and Functional Requirements
13374--Advanced Signal Controller
13375--Freeway Management and Traffic Operations

In addition to the above, the following ITS courses are being developed with presentation planned for late FY 1997:

- o Incident Management
- o Transit Management Systems
- o Regional Traveler Information Systems
- o ITS in the Transportation Planning Process

Funding allocations for this purpose is show in the table below:

	ISTEA	GOE
FY 1995	$0	$306,000
FY 1996	$300,000	$270,000
FY 1997	$750,000	$320,000

Question. What other training activities elsewhere in FHWA are underway during FY 1996 and planned for FY 1997? Please specify the amount of ISTEA and GOE funds involved for specific training-related activities for FY 1996 and FY 1997.

Answer. The following is a listing of the FY 1996 activities under the ITS Professional Capacity Building Program (the activities are funded from ITSEA funds):

FY 1996 PROFESSIONAL CAPACITY BUILDING PROGRAM

Manage/Conduct Overall Professional Capacity Building Program	$250,000
Develop and Produce ITS Awareness Videos • U.S. DOT, State, Local • Managers/Elected Officials • General Public	$150,000
Develop Executive Awareness Scanning Reviews	$40,000

Develop K-12 ITS Program	$60,000
Develop ITS/ITI Deployment Assistance Seminars o ITS Overview, Benefits, and Costs o ITS and the Transportation Planning Process o Public-Private Partnerships o Innovative Procurement o ITS and Telecommunication o Architecture and System Integration o Systems Engineering	$800,000
Update Existing ITS Specialist Short-Courses • Traffic Signal Systems • Freeway Incident Management Systems • Freeway Surveillance and Control • ITS Planning and Functional Requirements • Freeway Traffic Operations	$300,000
Develop New ITS Specialist Short-Courses • Transit Management Systems • Regional Traveler Information Systems	$400,000
Present Commercial Telecommunications Course	$20,000
Upgrade Demonstration Project DP-105 Advanced Corridor Management Technologies	$100,000

The following is a listing of planned FY1997 activities (including some NHI-related activities) under the Professional Capacity Building Programs (These activities are funded from ISTEA funds):

FY 1997 Professional Capacity Building Program

Planned Activities

Activity	Budget
1. Coordination And Program Development	$250,000
2. Develop ITS Awareness	$575,000
3. Upgrade Existing Short-courses	$300,000
4. Develop ITS Specialist Short-courses	$900,000
5. Provide Non-traditional Training	$250,000
6. Develop Its Management Course	$625,000
7. Develop Technician Training Course	$100,000
8. Provide University Scholarship Program	$500,000
9. Develop Certification & Core Curriculum	$1,500,000
Total FY 1997 Budget (From ITSEA Funds)	$5,000,000

In addition, as part of an overall outreach program, the Office of Motor Carriers (OMC) has begun to fund CVO- related training initiatives. $100,000 in ISTEA funds were included in the FY 1996 Budget to fund the development of a National Training Plan for Federal and state CVO managers. $1.2 million in ISTEA funds have been requested in FY 1997 for continuing the training effort, for OMC/federal aid staff members and their state counterparts involved in monitoring, oversight, and implementation for ITS/CVO projects.

Question. In previous reports, the Committee indicated that FHWA should vigorously seek out qualified projects that advance ITS technology and simultaneously demonstrate new institutional arrangements. Please describe what new projects have been pursued during the last two years to accomplish this objective since our report was issued last year.

Answer. Almost all ITS deployments have involved new institutional relationships. Indeed, the newness of those relationships has been cause for project delay in many cases. Examples of a few of these new relationships include:

- The operational tests of electronic clearance at international borders (in Nogales, Arizona; Otay Mesa, California; Detroit, Michigan; Buffalo, New York; and Santa Teresa, New Mexico) are demonstrating how public officials from Mexico, Canada, States, and multiple federal agencies can work together to deploy new technologies to enhance the safety and efficiency of border crossings.

- Advantage I-75 is a demonstration of a working collaboration of multiple institutions in a 10 state corridor.

- The prototype testing of CVISN in Virginia and Maryland has required unprecedented co-operation among all agencies with truck regulation authority -- documented in the Memorandum of Understanding.

- The National Automated Highway Systems Consortium (NAHSC) is a ground breaking collaboration between government and industry to engage in fundamental research and to ensure a smooth transition to development.

Perhaps the most important demonstration of new institutional relationships will be the development of the Intelligent Transportation Infrastructure (ITI). Where individual agencies are becoming comfortable with deploying *components* of the ITI, *integration of those components* and making the information from the resulting *system* available to the public sector will require and enable new levels of interagency collaboration. This is a large part of the intent for the model deployment program that has been proposed in the FY 1997 Budget.

Question. Subcommittee staff has been told that there is no mechanism to ensure that all federally-supported reports and contractor results are entered into the clearinghouse operated by ITS AMERICA. Is this correct? If so, what should be done about this situation?

Answer. There is no formal mechanism to ensure that all Federally-supported reports and contractor results are entered into the Clearinghouse operated by ITS AMERICA. However, the ITS Joint Program Office asks for a list of publications at each of the program quarterly reviews and makes an effort to ensure that these publications are provided to the ITS America Clearinghouse. We are currently working on linking (by installing hyperlinks) the ITS America and ITS Joint Program Office World Wide Web sites to ensure that information is shared between the two organizations and is easily available to the public when accessing either Internet site.

AUTOMATED HIGHWAY SYSTEMS

Question. Is the AHS Consortium still proposing to add trucks to the 1997 AHS demonstration? If so, what are the specific technical and economic benefits to be derived from this activity?

Answer. Yes, the NAHSC has finalized plans for the 1997 proof-of-technical-feasibility demonstration which will include both passenger cars and trucks. This is a different status than reported in answer to a similar question from the House because of a change of negotiation outcomes in the intervening period.

The precursor studies and early NAHSC work have shown that heavy vehicles will provide significant safety and mobility benefits that are at least as great as those for passenger cars. Moreover, controlled, professionally driven heavy vehicle fleets are likely to be early implementers of AHS technology. The potential for commercial vehicle markets is evidenced by the advanced state of technology already developed by the truck manufacturing industry. To explore these applications further and to better understand the differences in passenger and heavy vehicle applications, the NAHSC sought to include heavy vehicles in the AHS demonstration. The demonstration activities have been carefully aligned with the longer term program, so that the work carried out in preparation of the demonstration feeds the development of the prototype.

A Department of Defense analysis expects similar safety and productivity benefits for platoon operations of heavy vehicles. DOD is participating in the AHS program as an Associate Consortium member through the

U.S. Army Tank and Automotive Command. This permits the two Departments to leverage their research programs and to prevent duplication of effort.

Question. Are there some features of the AHS program that could be eliminated or postponed to reduce the costs of the program?

Answer. When the initial contract was signed we made a decision to eliminate several elements to "reduce the cost of the program." An example is the development of systems which would automatically guide vehicles through inspection stations and freight terminals. These are local options that may be added at specific sites in the deployment of AHS. We have further trimmed the number of concepts being evaluated. Given the approach we have chosen to take -- dealing with a Consortium -- we believe that this program is devoid of "bells and whistles" and that further reduction would seriously harm its mission. Delay of the program will jeprodize our ability to maintain the team of people working it.

Question. Is there any agreement that with mixed classes of vehicles, it will be difficult to optimize traffic flow or to control safety? If so, why doesn't FHWA proceed with an engineering design that calls for a separate lane of different guideways for heavy vehicles?

Answer. The AHS precursor systems analyses addressed this issue and identified alternative methods for combining classes of vehicle safely. For example, depending on local needs and policy, heavy vehicles could be accommodated in separate lanes. Time separation is also viable; for instance, use of AHS lanes by heavy vehicles can be restricted during peak periods to optimize throughput for passenger cars.

Alternatively, safety requirements could be met by separating trucks from cars by a safe distance within a single lane. All vehicle separations within the AHS would be monitored and controlled by the system, taking into account elements such as vehicle weight, stopping ability, and pavement conditions. Nevertheless, the types of questions raised in this inquiry are exactly the purpose of the AHS research effort -- to determine if such mixed traffic can be controlled and how best it can be done. Engineering designs of these types of approaches will occur later in the program following concept definition.

Question. Please discuss the implications of reducing your FY 1997 request for AHS to $20 million. What activities or projects would be eliminated? Which would be delayed? Separately, please answer the same questions with respect to a $25 million limitation for FY 1997.

Answer. A budget reduction of 33%, to $20 million, would seriously affect the ability of the National AHS Consortium (NAHSC) to conduct this national program and jeopardize this public/private partnership. The ability of the government to enter into public/private partnerships, a cornerstone of the ITS deployment approach, hinges on the dependability of the government in fulfilling its contractual commitments. For the NAHSC, this type of major re-adjustment would likely result in the loss of key staff across all the Consortium members. Private sector Consortium members would re-think their involvement, with a very real possibility that one or more members would withdraw. In establishing the Consortium, the Department was careful to create an entity in which all key stakeholders are represented. The loss of Consortium members would affect the organization's balance and undermine its credibility and ability to carry out the mission. Further, a shortfall of this magnitude is likely to result in either wasting investments that have been made to date, or if the effort is continued but drawn out, substantially increasing its cost.

A budget reduction of 20%, to $25 million, would of course have a lesser impact. Nevertheless, key staff would be in jeopardy and the possibility of some corporate members withdrawing from the Consortium would remain.

Continued delays in program funding will also result in U.S. capability which cannot keep pace with developing foreign markets and overseas competition. For example, the Japanese Ministry of Construction intends to allocate funds in the range of $50 million to AHS research in their current fiscal year, and the Dutch Department of Transportation has a very active program to deploy an automated freight movement system.

Budget shortfalls to date, as well as any future shortfalls, are being treated as funding delays, given the Department's funding commitment to the NAHSC in the cooperative agreement. In adjusting to shortfalls in a given fiscal year, the Consortium examines level-of-effort tasks for reductions as well as core technical activities which could be stretched out. Examples of areas which would be examined for adjustment include: concepts development and evaluation (encompassing societal and institutional analyses, engineering analyses, technology development, simulation tools development, and subsystem prototyping); the proof-of-technical-feasibility demonstration (substantial engineering development is now underway, however, which should be completed to avoid waste); and program management/travel (although these activities are currently kept to a minimum, such that further reductions would increase program risk).

Question. Would the ITS JPO expect to make up any difference in the amount of GOE funds actually appropriated compared to the amount requested with ISTEA funds?

Answer. The feasibility of such an action on the ITS JPO's part can not be determined until the final budget is received. Under any circumstances it would be difficult given the priority of the elements currently included in the ISTEA portion of the budget and the allocations required by ISTEA.

Question. What is the amount requested for the outreach component of the AHS program? Please breakdown the expected used and associated amount of these funds. Why are these expenditures critical at this time before the AHS is technologically proven?

Answer. The portion of the AHS FY97 budget request allocated to outreach is $780,000. This is broken down as follows:

Workshops/Public Forums	$133,000
Demo Support	$140,000
Professional Community Outreach	$257,000
Education	$15,000

Professional community outreach engages professional societies, particularly ITS America, to establish dialogue with practitioners. This is augmented with a quarterly newsletter. Expenditures for this and all other forms of outreach represent less than 3% of the $30.7 million budget request for FY 1997. This modest investment is critical to ensure that the emerging technical products make sense with respect to the market and the society in which they would be deployed. Without such dialogue we could end up with a technically feasible "engineering" solution, but one which is undeployable.

Question. What is the benefit of investing in the 1997 prototype test? Is there much to be gained from putting state of the art technology together even when it has been already tested abroad and tested in small scale efforts in this country?

Answer. From a management perspective, the demonstration has emerged as an excellent vehicle to focus the early work of the Consortium to create a major interim product after close to three years of technical work. Thus, in response to the ISTEA mandate, FHWA and the NAHSC have crafted a substantial technical endeavor which is also embedded in the financial structure of the Consortium. Any consideration of canceling the demonstration would be very disruptive at this late point resulting in wasted resources given the investment to date and the need for major replanning.

The non-recoverable costs of the 1997 demonstration are small and primarily covered by the cost share of the non-Federal Consortium members. This further reinforces the importance the Consortium places on conducting a demonstration. The remainder of the demonstration expenditures are carefully aligned with the technical needs of the longer term program. Because substantial technology development, systems engineering, and on-road testing are occurring to produce this demonstration, it can be seen as integrating candidate technologies into an operational environment. An example is the current development work to modify steering and throttle actuators which will be used in the demo vehicles. These new actuator designs will be used in subsequent prototype work.

In addition to the technology demonstrations, the 1997 event will include an exposition (self-supporting) which will illustrate how an AHS might become part of a region's transportation system. The 1997 demonstration thus combines technology capability with viable deployment paths to fully establish technical feasibility.

By supporting this demonstration, government leadership stimulates further private sector investment in this area. With our encouragement, the NAHSC has opened the door to the participation of other organizations in the demonstration. As a result, other vehicle manufacturers and technology firms are investing internal research dollars to bring their capabilities from the laboratory to the road, representing multi-million dollar contributions in several cases. In this way, society is served by accelerating the market introduction of advanced vehicle control products, with collision warning and avoidance systems in the near term and automated highway systems in the long term.

With regard to technology demonstrated in other venues, stakeholders in particular industry sectors have indeed demonstrated substantial technological capability, primarily in the area of collision warning and avoidance, which are also important basic AHS functions. The AHS demonstration will integrate these basic collision avoidance capabilities with new capabilities in automated vehicle control, with the vehicles and the highway cooperating as a unified system. For the first time, this cumulative benefit will be demonstrated.

Question. Please breakdown in exhaustive detail each of the components of your AHS request, showing amounts that are requested for the 1997 prototype work versus research and development necessary for the eventual AHS operational test.

Answer. The components of the AHS fiscal 1997 budget request are as follows. All figures are Federal share:

System Engineering	$0.9 million
Concept Development and Downselection	$6.1 million
Technology Development	$5.3 million
Simulation Tool Development	$4.3 million
Societal and Institutional Analyses	$0.9 million
Proof-of-technical-feasibility demonstration	$8.1 million
Outreach	$0.8 million
Program Management/ Program Office	$3.6 million
Program Office Operations	$0.7 million
Total	$30.7 million

Because of cost-sharing variabilities among Consortium members and across work tasks, budget reductions directed at any particular part of the program would likely have considerable repercussions throughout the program and may threaten the viability of the NAHSC. For example, elimination of the 1997 demonstration would have a major impact on the NAHSC's ability to meet the total 20% cost-share requirement across the entire program, due to the major investment of the California Department of Transportation in this task.

Question. What specific projects or activities that are funded out of the fiscal year 1996 Budget for the AHS 1997 prototype must be completed using Fiscal Year 1997 funds? What is the minimal amount required, why and for what purposes?

Answer. Within the fiscal 1997 AHS budget request of $30.7 million, $8.1 million is allocated to the 1997 demonstration. All activities to conduct the 1997 demonstration will be initiated in FY 1996. The specific activities associated with the demonstration are as follows:

Vehicle development and test
Heavy vehicle development and test
Infrastructure modification and test
Communications
System integration
Logistics/Public Relations

In a minimal funding scenario, the only area which might yield any significant cost savings would be the vehicle development efforts (both trucks and passenger cars), which would result in achieving a lesser capability. Much of the vehicle development work will be performed in FY 1996, which significantly limits the opportunity for reductions in 1997 to an estimated 10% of the $8.1 million FY 1997 demonstration budget. However, since these same capabilities must be developed for the subsequent concept test and prototype work, it is questionable as to whether any "savings" would actually be achieved.

Question. What is the amount of ISTEA funds allocated to AHS in fiscal years 1996 and 1997?

Answer. The ITS spending plan for FY 1996 includes $2.5 million of ISTEA funding allocated to the AHS; none of the ITS funds requested for the AHS activity in fiscal year 1997 is from funding provided by ISTEA.

The $2.5 million was added in the 1996 Budget to help us meet the 1997 congressionally mandated demonstration of the technical feasibility of AHS and not lose a substantial investment that had already been made.

Question. How much has been invested in the 1997 prototype and what is the absolute minimum necessary to have a very modest showpiece by 1997? Please provide a definitive breakdown of your answer and elaborate on the scope and nature of the individual components and projects judged absolutely necessary.

Answer. FHWA believes that the scope of the 1997 AHS demonstration is appropriate to establish proof-of-technical-feasibility. With the National AHS Consortium, we have intently scrutinized the content of this activity to ensure that it is sufficient to accomplish its mission, while being conservative. It should be noted, for instance, that the accompanying technical exposition will be fully self-supporting, much like a trade show. The technical development efforts of the National AHS Consortium will combine with multi-million dollar contributed efforts from other stakeholders so that our goals are met, substantially leveraging the Federal investment. Further, we have aligned the demonstration activities very closely with the longer term technical program, so that this investment offers payoff beyond 1997.

The Federal share of investment in the 1997 demonstration for FY 1995 and FY 1996 totals $9.9 million. Within the FY 1997 budget, an additional $8.1 million is necessary to conduct a successful demonstration. This funding supports the following activities, each of which is an essential piece of the effort:

- Vehicle development and test --Enables the development and completion of the demo vehicles.
- Heavy vehicle development and test --Enables the completion of one to two trucks to perform automated operations.
- Infrastructure modification and test -- Enables the completion of modifications to the I-15 facility which will host the demonstration, to include installation of magnetic reference markers, safety treatments, and a staging area.
- Communications -- Provides for the design and installation of a communications backbone along the roadway and the corresponding communications equipment in the vehicles and the traffic management center.
- System integration -- A key activity to risk management, system integration is required to ensure that all equipped vehicles work successfully in interacting with each other and the infrastructure.
- Logistics/Public Relations -- This is the sole area of demonstration activity that does not offer technical products to support the longer term program. Integrating live vehicle demos with a technical exposition for a large audience is a complex undertaking and requires a strong focus on logistics. Public relations are key to ensure that the AHS vision is clearly communicated to the audience and the public. This is a modest investment of approximately 3% of the total

Federal funding for the demonstration. We feel this level of funding is appropriate to an event in which U.S. technological capability is showcased for the world.

In a minimal funding scenario, the only,area which might yield any significant cost savings would be the vehicle development efforts (both trucks and passenger cars), which would result in achieving a lesser capability. Much of the vehicle development work will be performed in Fiscal Year 1996, which significantly limits the opportunity for reductions in 1997 to an estimated 10% of the $8.1 million fiscal 1997 demonstration budget. However, since these same capabilities must be developed for the subsequent concept test and prototype work, it is questionable as to whether any "savings" would actually be achieved.

Question. What technologies and hardware systems are being advanced by the AHS Consortium? At what costs?

Answer. Technologies currently being advanced and their associated development investments are listed below. This list includes existing efforts and near-term starts; it does not encompass technology development plans for the entire program. These activities assume full program funding in FY 1997. Please note that these cost figures are for multi-year development efforts and are thus not exclusively funded by FY 1997 monies. The total for these efforts is $9.5 million.

1. **Longitudinal Separation** - investigation of in-lane (headway) control and obstacle detection for AHS vehicles:
RADAR & RADAR polarimetry development and testing
- $750,000
Electromagnetic Countermeasures&Interference (EMC/EMI)
- $500,000
RADAR Health and Safety issues research
- $100,000
2. **Stereo Vision** - vision systems for in-lane (headway) control of AHS vehicles:
Stereo vision systems development
- $500,000
3. **Blind Spot Detection** - detection of vehicles and/or obstacles in driver blind spot areas:
Capaciflector prototype development
- $38,000

4. **Non-stereo Vision** - vision systems for in-lane (headway) control of AHS vehicles:
Color Video sensing
- $750,000
Optical Flow techniques
- $250,000

5. **LADAR** - Light or laser activated detection and ranging systems for in-lane control and obstacle detection for AHS vehicles:
LADAR systems
- $250,000

6. **Magnetic Marker** - lateral (lane keeping) control of AHS vehicles using magnetic markers embedded in the roadway:
Magnetic marker development and testing
- $200,000

7. **Magnetic Stripe** - develop and validate the use of permanent magnets embedded in lane marking stripes for lateral (lane keeping) control of AHS vehicles:
Magnetic stripe development and testing
- $280,000

8. **Differential Global positioning Systems (GPS)** - quantify the performance available for carrier-phase GPS and investigate merging GPS and inertial navigation systems (INS) to handle GPS signal drop-outs:
GPS research and development testing
- $161,000

9. **Lateral Positioning Vision Systems** - development of systems for lateral control of AHS vehicles:
Improvements for tighter spacing & weather tolerance - $264,000
Sensor fusion to enhance object detection capabilities
- $600,000
Video processing for improved delectability of road markers
- $100,000

10. **Frequency Selective Strip (FSS)** - RADAR reflective surface that is being developed for use as road markings for lateral control:
Refine, build, and test FSS for vehicle guidance - $500,000

11. **Roadway Based Sensing** - development of sensors and algorithms to estimate road surface conditions:
Develop environmental sensors to detection roadway friction
- $150,000
Test existing sensors for overhead obstacle detection abilities
- $120,000

12. **Vehicle Actuators** - development of "drive-by-wire" systems for vehicle control:

Steering actuator development
- $193,000

Throttle actuator development
- $193,000

Brake actuator development
- $193,000

13. **Communications** - development of hardware and software protocols for high-bandwidth low-latency communications between vehicles and the infrastructure:

Vehicle to vehicle communications
- $500,000

Vehicle to infrastructure communications
- $300,000

14. **Processing** - development of hardware and firmware to enable the use of multiple signal processors for analyzing video and other sensor data:

Digital signal processor (DSP) developments
- $250,000

15. **Lateral and Longitudinal Control Algorithms** - development, integration, and validation of high accuracy software algorithms for steering, throttle, and brake operation Algorithms for normal and emergency operating conditions
- $1,175,000

16. **Link-layer control** - development of traffic control methods specific to AHS:

AHS specific traffic management control center developments
- $750,000

17. **Software Safety** - verification and validation of critical software elements for vehicle control: Select and refine the best methods for validating real-time control software
- $400,000

ITS STANDARDS, SPECTRUM, AND USER SERVICES

Question. What are you doing to advance public sector standards?

Answer. The standards program goal is to develop and implement standards and protocols to promote the widespread use and evaluation of Intelligent Transportation Systems as a component of the nation's surface transportation system. Through cooperation agreements established with five Standards Development Organization (SDOs), US DOT will be able to help accelerate development of foundation and other critically needed public sector standards such as a Location Referencing Standard, the National Transportation Communication ITS Protocol, Transportation Management and Transit Data

Dictionaries, and standardized electronic message sets that transfer information between both cooperating public agencies as well as public and private organizations.

Most recently we have isolated from the architecture requirements those standards critical to the ITI or public infrastructure portion of ITS deployment. Those standards have been prioritized and we are currently developing agreements with the SDOs to launch efforts for their development. A detailed matrix of the status of each of the standards efforts is available from the ITS Joint Program Office.

Question. What are you doing to advance private sector standards?

Answer. Private sector standards are being actively pursued. For example, the Society of Automotive Engineers (SAE) is developing ITS standards for inside the vehicle. Such activities are: --Protocols and interface standards for in-vehicle electrical databus that will allow ITS devices to be plugged into so as to be interoperable and share information (much like a local area network);
--Independent testing standards for validation of map database vendor products;
--Vehicle navigation/route guidance operations and design guidelines; and
--Intelligent Cruise Control operational characteristic guidelines.

Another example is the development of the Radio Broadcast Data Standard by the National Radio Systems Committee which will allow for one-way broadcast transmission of traffic information to travelers.

Question. What are you doing to advance regional standards?

Answer. The natural geography of the Intelligent Transportation Infrastructure (ITI) is a metropolitan region. U.S. DOT is placing a high priority on standards that directly support the ITI deployment initiative.

Question. Won't regional standards adversely affect the drive towards national standards?

Answer. No. The standards development efforts will result in standards which are uniform nationally even when they support regional operations. Systems for one region will be interoperable with other regions.

Question. What are you doing to ensure that all of the standard developing organizations working under contract to FHWA are:

--Communicating?

--Not working at cross purposes?

--Timing the completion of their work in a rational manner? and

--Coordinating the scope and nature of their final products?

Answer. All of the SDOs working in the ITS community coordinate regularly through Council of Standards Organizations (CSO) of ITS America. In addition, the five SDOs funded by US DOT are tasked to collaborate as appropriate. Quarterly reporting meetings are held with all five SDOs presenting their program plans, status, and issues for each standard under development and in the presence of the other SDOs. We have retained a support contractor to monitor each of the standards setting processes and note progress, conflicts, overlapping concerns etc. These are being tracked on a large complex matrix available through the ITS JPO. These concerns and issues will be raised at the quarterly meetings.

Question. What is on your list of high priority standards? How much money do you plan to spend on promoting high priority standards during FY 1997? (Please include ISTEA and GOE funds.) About how much money will be necessary to complete this work in the outyears?

Answer. Based upon a survey distributed by ITS America to more than 1,000 members of the ITS community, a list of high priority standards has been identified. U.S. DOT is considering this input as one source for establishing funding priorities. Also, an assessment is currently being made as to which of the items identified by the architecture as needing standardization should be facilitated by government funding. In many cases, private industry should absorb the total cost of standards development. U.S. DOT is currently in the process of negotiating project funding and priority with each of the SDOs under contract to ensure that government objectives are being met. The list as identified by the survey follows:

Very High Priority -- Start Development Within One Year

National Transportation Communications ITS Protocol (NTCIP)
Location Reference Specification
Message Set for Controlling Field Equipment

(part of NTCIP)
Traffic Controller 2070 (NTCIP)
Traffic Management Data Dictionary
Message Set for Incident Management
Dedicated Short-Range Communications Protocol
Traveler Information Data Dictionary
Umbrella Standard for ITS Data Dictionaries
Message Set for Electronic Toll Collection (ETC)

High Priority -- Start Development Within Three Years

Message Set for TMC Intercommunication
Spatial Data Interchange
Message Set for Automatic Vehicle Identification
Message Set Template
Message Set for Mayday Alert
Message Set for Commercial Vehicle Safety & Credentials Information
Message Set for Priority Traffic Signal Priority
Survey of Communications Technologies, Practices and Standards Relevant to ITS Commercial Vehicle Operations Data Dictionary
Message Set for Commercial Vehicle Credentials
ITS Map Datum
ASN.1[ISO 8834] Application to ITS Message Definition Recommended Practice
Message Set for Vehicle Navigation
- (1) Outbound Traffic Broadcast
High Speed Data Subcarrier Protocol
Message Set for External TMC Communication
Message Set for Automatic Vehicle Location
Message Set for Accident Reporting
Message Set for Hazard Material
    (HazMat) Management
Radio Broadcast Data System Protocol
Public Transit Data Dictionary
Message Set for Public Transit Emergency Services
Message Set for Commercial Vehicle
    International Border Crossing
Message Set for Public Transit
    Electronic Fare Collection
In-Vehicle Databus Interface
Message Set for Public Transit
    Operations Management
Message Set for Public Transit
    Information Services

The standards budget for supporting standards efforts in FY 1997 is $8,250,000 -- consisting of $7,050,000 (GOE) and $1,200,000 (ISTEA). As we have indicated in the Budget documentation material, we expect to spend on the order of $10,000 per year on these activities over at least the next three years. These are preliminary estimates which we expect to be refined based on an initial year of experience working with the standards setting community.

Question. What did you do to reduce the amount of the cooperative agreements that you have signed with each of the Standards Developing Organizations (SDOs)? Can these expenditures be reduced further?

Answer. We have restructured the agreements with each SDO to minimize the amount of funds for administrative oversight by them. The vast majority of the funding will be directed towards specific standards development activities as agreed to in their project plans. This does not reduce the amount of funding, but redistributes it to increase the productivity of each SDO agreement. We are prioritizing the standards and carefully assessing where Federal funds will actually make a difference in advancing standards development for the more than 300 information flows in the architecture and which of these are most critical to advancing the deployment of critical ITS infrastructure. We will be carefully monitoring the activities of the SDOs to look for ways to economize since we are concerned that we may not have budgeted sufficient funds to address all of very high priority standards setting needs.

Question. For each of these cooperative agreements, please carefully specify how the amounts allocated for each award was determined.

Answer. Each SDO had submitted a five-year cost plan as part of their original proposals and had identified the standards topic areas they were interested in pursuing. The total efforts proposed well exceeded the budget of $16 million. U.S. DOT negotiated with each of the SDOs to bring the total package within the budget constraints. SAE and IEEE were envisioned to have the bulk of the effort and therefore, were given larger amounts. Even though specific amounts have been identified in the agreements with each organization, they cannot draw down on their account without having an approved task order. At the time of awards, it was undetermined exactly which standards activities would be funded and how much the standards development process would cost. Therefore, at that time we had inserted into the agreements a provision stating that after two years, the funding amounts associated with each SDO would be reassessed, and that the funding ceilings would be recalculated to be in line with the amount of activity in their particular area and performance of each SDO.

Question. What are you doing to develop a user service regarding grade crossing safety? What will be the scope and nature of this user service?

Answer. FHWA and FRA have jointly developed and approved the Highway-Rail Intersection (HRI) user service. The architecture will be updated to support the requirements for this new user service. Briefly, the scope and nature of the HRI user service is such that: (1) it must be integrated with other ITS user services to support capabilities such as innovative warning devices, train activated roadside message signs, in-vehicle advisory and emergency warnings, and automated collision notification; (2) it must support Standard Speed Rail which applies to traditional types of rail operations under 79 mph; and (3) it must address High Speed Rail requirements (over 79 mph).

Question. Please break out in detail the expected uses of the monies requested to advance standards work during FY 1997. For each of the contracts that have been signed to help develop standards, please provide exhaustive detail justifying the amounts projected to be spent.

Answer. Spatial Data Transfer Standard: This will provide $1 million to support completion of a 3-year effort (total cost $3 million through FY 1997) to develop a spatial data location referencing system and define a Spatial Data Transfer (SDT) profile for ITS, simulate the profile in computer models and provide technical support for the use of SDTs prototypes in operational tests (the actual operational test activity is covered under a separate line). This project will also coordinate numerous ongoing national and international transportation spatial database efforts with the ITS efforts ensuring inter-operability between modes of travel.

NTCIP: This will provide $1 million to support, maintain, and refine the National Communications/ITS Protocol (NTCIP). This funding will cover four major areas: (1) continue the consensus building process required to establish NTCIP as a national ITS standard, (2) introduce additional traffic control devices into the standard, including environmental sensors (i.e., fog detectors, air quality sensors, etc.), malfunction management units, etc., (3) develop necessary interfaces to existing infrastructure therefore enabling the retrofit of already deployed equipment, and (4) establish and conduct an experimental plan to evaluate the NTCIP at various field sites. The funding for evaluations will not be used to implement NTCIP into field devices.

CVO Standards: This will provide $500,000 to provide national coordination for acceptance of the proposed ANSI ASC X12 and EDIFACT standards and work with the appropriate organizations to refine and complete a majority of the appropriate standards. This will include coordination with CVSA, AAMVA, ITSA, HELP, I-75, CDLIS, IFTA, IRP, CVIS, SAFER, States, private industry and many other organizations. This effort will require funding in FY 1998 to complete.

Transit Management Standards Support

This $50,000 project will continue the support for the International Standards Organization undertaken by the U.S. as the designated international lead country for public transit. This task is in conjunction with the national architecture task which is defining the transit standards to be used in the United States.

Technical Support

This will provide $500,000 in support for evaluating and monitoring projects generated from the standards cooperative agreements with SAE, IEEE, ASTM, ITE, and AASHTO. This will include participating in standards committee meetings, helping to identify critical standards activities, harmonizing the developing standards with the National Architecture, and harmonizing activities with international efforts. These funds will also provide an international program assessment in standards.

Traffic Management System Support Standards

This will provide $700,000 to support development, adoption, and maintenance of standards and guidelines directed towards traffic management systems. The deployment of ATMS encompasses the establishment of traffic control centers. The functionality within the control centers needs to allow for alternate computing architectures which can be configured based upon existing communications infrastructure and desired functionality. Standards that allow for the integration of vendor independent products, both hardware and software, will be required. These standards will create and sustain a broad-base market for manufacturers, facilitate the retrofitting of already deployed systems, and significantly increase the life of traffic control systems. In turn, these standards will also provide interoperability and interchange ability of traffic control products.

Dedicated Short Range Communication (DSRC) Test Facility

This will provide $1 million to support the establishment and operation of a test facility to help resolve technical uncertainties that have contributed to the lack of movement in the DSRC arena. This test facility and associated activities will pave the way for developing an open standard that will promote national interoperability, for the mobile user, in obtaining ITS services. DSRC (also known as Vehicle-to-Roadside Communications) has been identified as a key element in the successful deployment of an ITS national architecture. Currently, there are a number of incompatible systems being deployed around the country. Previous attempts to develop an open standard have been unsuccessful in making significant moves forward.

National Architecture

This will provide $3.5 million to support continuation of Standard Development Organizations' (SDOs) efforts to obtain dedicated technical and administrative committee support to accelerate the standards development process. The technical support will consist of research projects, technology assessment activities, and testing of developed protocols and standards. Administrative support will consist of producing draft standards, supporting information facilitation among and within committees, and liaisoning with other activities such as research and development efforts, operational tests, and deployment. The focus of the standards development effort will be on interface standards resulting from the national architecture activity. We anticipate requesting FY 98 funding of $6.0 million or less for this activity. Funding requests beyond FY 98 are also expected.

Fiscal year 1997 funding requests from the SDS and use of funds for standards development are as follows:

AASHTO - $526,000
For development of standards relating to roadside infrastructure.

IEEE - $1,117,000
For development of standards relating to electronics and communications message set and protocols.

SE - $845,000
For the development of standards for in-vehicle and traveler information systems.

ASTM - $500,000
For the development of standards relating to ITS unique short-range communications systems.

ITE - $400,000

For the development of standards relating to traffic management and transportation planning systems.

Total - $3,388,000

Note: Fiscal Year 1996 had a funding request from the five SDOs of $3,200,000 for which only $2,000,000 is available. Since most standards activities are multi-year in nature, the funding shortfall will be covered by funding availability in Fiscal Year 1997 for which $3,500,000 is budgeted.

Cooperative agreements were established with the five SDOs in January 1996. The first task these SDOs are undertaking, is to develop their program of work which is in process now. These work programs will describe the specific standards development activities each plans on undertaking over the next couple of years. The funding will then be provided on a task order basis at the initiative of US DOT when the department believes that a particular standard could benefit from funding for technical expertise or, for example, the convening of a workshop. The task orders will then develop the detailed person task matrices called for in the question.

Question. What is the number and type of standards that must be agreed to ensure interoperability?

Answer. The architecture results have identified 45 specific interfaces (and therefore, the associated message sets) that require standardization for nationwide interoperability. Also, there are a number of standards needed for regional interoperability called out by the architecture. In many cases, a single standard will serve both purposes. In addition, there are a number of other areas that need to and are being addressed to support the compatibility objective. These deal with communications protocols (e.g., NTCIP, DSRC, FM High Speed Subcarrier) and enabling/cross cutting standards (e.g., Location Referencing System, spatial data transfer, data dictionaries, etc.). A matrix of the status of each standard activity is available from the JPO.

Question. What functional specifications have been developed that would encourage highway organizations to by "smart and deploy ITS?

Answer. The ITS JPO has identified a series of functional specifications to be generated to assist not only highway but other organizations in implementing the architecture. The first of these functional specifications is currently in preparation and targeted for completion by the end of September 1996. Other audiences for whom the need to develop functional specifications have been identified include:

1. Traffic Control Centers
2. Transit Operations
3. Emergency Management
4. Freeway Management
5. Independent Service Providers

Funding for development of these specifications is included in the 1997 mainstreaming and architecture budgets.

Question. What is the time line to procure consensus agreement on each of these?

Answer. Standards development, both nationally and internationally is a process of developing consensus among manufacturers and product users. Sometimes that can occur quite quickly as was the case in the development of the transit ITS electronic bus standard and appears to be the case with the NTCIP standard which is nearing completion. In other cases it can take years. The process itself can sometimes be expedited by technical analysis or assuring public agency attendance which is the primary purpose of the SDO funding.

Question. When will it be a requirement to use the systems architecture and consensus standards in any ITS projects funded in part with Federal aid, ISTEA or GOE funds? How will you establish this requirement.

Answer. The architecture is not a rigid set of guidelines that must be followed. Rather, the architecture defines a set of functions and how those functions should be interconnected and data transferred between functions. Not every implementer will need all the functions the architecture defines. The architecture is flexible enough that it can be a guide to the wide variety of needs our communities have across the country. As an output of the architecture, we have defined the need for a number of standards that can facilitate the implementation of ITS capabilities. We are pursuing vigorously the standards setting process, which is a consensus approach within the industry. If this process is successful, there will not be a need for the federal government to intervene prematurely. The industry will adopt and use the standards in their own self interest. We are currently requiring all operational tests and model deployments to be consistent with the architecture and it is reasonable that once industry standards have been established, they be linked to use of Federal funds.

COMMERCIAL VEHICLE OPERATIONS

Question. Is FHWA planning to provide any additional assistance to the I-75 project during FY 1997? If so, what will be the scope and nature of this assistance? Will any of this assistance pertain to advancing the safety benefits of this CVO project? Were Federal funds provided during FY 1995 or FY 1996? If so, for what purposes?

Answer. The ITS budget includes $2 million in funding from the corridors program for the Advantage I-75 Corridor the propose of expanding the system -- providing those funds are not earmarked for other purposes. The FHWA plans to provide the second year of operational test money to Advantage I-75 in the amount of $2 million in FY 1997. Federal funds were provided to the project in FY 1995 and FY 1996 for software and hardware development and installation along the spine of the system.

Question. What is the availability of the funds to train State MCSAP officers and Federal motor carrier safety specialists on the benefits and use of ITS technologies? What training is now being conducted during FY 1996 and how much is being spent on this activity? How much do you plan to spend on this activity during FY 1997.

Answer. The Office of Motor Carriers has spent $100,000 on training in FY 1996 primarily in assessing training needs and developing a training plan. In fact, $1.2 million is requested for next year to launch this effort.

Question. Please list the amounts and purposes of the FY 1996 contracts that you are funding to advance freight mobility as part of the CVO portion of the ITS program.

Answer. The ITS Joint Program Office has tasked the Volpe Center to conduct a study to help determine the role for US DOT in Intermodal Freight and to determine if there is a need to develop an architecture for such an activity. An amount of $250,000 has been allocated to this study. However, the improved mobility of goods in the United States is an important goal of the overall CVO ITS effort which would therefore cover virtually all contracts in the program.

Question. How does this current expenditure of funds in this area relate to the Committee's denial of the expenditure of funds for this area?
Answer. The Volpe study on intermodal freight is related to the ITS architecture, not to advance freight mobility as specified in the Committee report.

Question. In the CVISN pilot program, are you spending or planning to spend Federal dollars to link to internal carrier systems to shippers, banks, and insurers? If so, please discuss this linkage and its importance and why this is a public responsibility. How much will this part of the system cost? In your answer, please specify GOE and ISTEA moneys for fiscal year 1996 on 1997.
Answer. No. If a shipper, banker, or insurer wants to obtain information, they must develop their own connection to CVISN and be authorized by the owner of the data. There will be no Federal funds expended for the purpose of linking shippers, banks, and insurers. Linkages of those entities will be provided by the private sector as a part of fleet management activities, if industry desires. Our efforts to deploy CVISN are focused entirely on streamlining, and reducing the cost of the regulatory process while maintaining or enhancing the environment for these advanced technology practices to take place. Thus, business efficiency should be positively effected as well as governmental efficiency.

Question. How could these costs be reduced?
Answer. Costs incurred for the type of linkages referred to would be borne by the private sector.

Question. I understand that you have met the congressional goal of equipping 100 MCSAP sites with new selection technology to better monitor high-risk carriers before the end of 1995. What has been the response of the MCSAP community to this congressional initiative?
Answer. Based on the results of an evaluation survey completed by 116 MCSAP inspectors in six states, pen-computers and the Inspection Selection System (ISS) appear to be well accepted. When asked if they believe that ASPEN (the inspection software) and the pen-computer itself have helped them in the inspection process, two-thirds of the inspectors answered on the "very helpful" end of a seven-point scale. In addition, three-fourths of the inspectors indicated that they would recommend ASPEN and pen-computers for use in other States. Similarly, when asked if the ISS has helped them in the inspection

process, a majority again answered on the "very helpful" end of the scale, and approximately 73 percent indicated that they would recommend the use of the ISS to other states.

One comment from an inspector in Nebraska reads, "The ISS is an excellent tool. The ASPEN program has made inspections easier and more comprehensive to all concerned and generally is an excellent tool for the MCSAP program."

The States have been very receptive to ASPEN and ISS. These systems are easily accepted because they work and they solve real and serious information system problems in MCSAP. Moving computerized data collection to the roadside greatly reduces data entry labor and data quality problems, vastly improves data timeliness, and enforces standard inspection procedures. It also enables information feedback mechanisms, such as CDLIS access for drivers and ISS analysis of carriers which allows inspections to focus on high risk carriers and drivers. The MCSAP community is also aware that the Office of Motor Carrier's (OMC) use of in-house development and close coordination of outside contractors consistently results in well-built, integrated, robust information systems. State buy-in comes easier by OMC's use of State centered technical working groups for user input and steering. This overall strategy minimized the need for States to build risky State specific systems and rely on untested contractors.

Question. What are your plans to improve SAFER and supporting systems? What plans have you made to equip at least fifty additional sites across the country by mid-1998 with the SAFER/inspection module?

Answer. Our plans to improve SAFER and supporting systems are:

Short Range:	Bring SAFER/CARRIER into operation for retrieval of carrier safety data at 200 sites by mid 1997. Bring SAFER/DRIVER-VEHICLE into operation for retrieval of driver/vehicle specific prior inspection records at 50 sites by mid 1998.
Long range:	Add intrastate carrier data to SAFER. Continue to expand sites equipped. Add credential and tax information to SAFER for ITS/CVO electronic clearance.

We are on target to equip at least 50 sites for SAFER driver-vehicle inspection data access by mid 1998. Our plans to do this include development of a new Data

Mailbox to speed up the input of inspection data to SAFER. We are also developing an interface between ASPEN and SAFER to transmit data and request prior inspections. We are working with a Consortium of Eastern States to develop a project that will have sites in these states be the first to implement this capability.

Question. What would be the next logical step in the progression and how much would this cost?

Answer. The next logical steps in this progression are to complete the short- and long- range plans described in the answer to Question 333. The most costly and crucial steps are to equip more sites with the computer equipment and data communications to use these systems effectively. This involves not only initial costs, but very significant ongoing costs for communications fees, equipment replacement and supplies. We have estimated that it would cost about $6 million to finish equipping all the estimated 2,000 full time MCSAP inspectors. Additionally, the recurring annual costs of communications fees, equipment replacement and supplies is estimated at about $4 million to $5 million per year.

Question. In the CVISN pilot program, how much do you plan to spend educating the public and key state and industry decision makers on the costs and benefits of the CVISN and ITS CVO services? In your answer please specify GOE and ISTEA monies for FY 1996 and FY 1997. Why is it necessary to spend money convincing industry to accept the CVISN?

Answer. In FY 1996, $346,000 in ISTEA funds will be spent informing and receiving feedback from the general public and key state and industry decision makers on the costs and benefits of CVISN and ITS CVO services. This helps assure that the program will be acceptable and implemented by the end users. The outreach activities include:

--A series of focus group discussions across the country for truck and bus drivers, state safety enforcement officers, and state tax collection officials--i.e., the end users of ITS CVO services;

--The dissemination of ITS/CVO information;

--The development of multi-media materials; and

--The production of presentation materials which can be used by FHWA field staff for meetings, briefings, and other outreach opportunities.

In FY 1997, $650,000 in ISTEA funding is proposed for outreach activities. The 1997 Outreach Budget includes funding requests for the following specific outreach projects designed to support efforts to inform and educate selected audiences regarding the ITS/CVO Program objectives, issues, activities, and cost/benefits as well as to gain input and insight to guide program development:

1. Technology Truck - **FY 1997 Funding: $160,000 -- ISTEA**. Funds would be used to support continued development/deployment of the DP111 Technology Truck. Funding would be used generally to focus on costs connected with kiosk information development/upgrade as needed, printed materials production/ reproduction as needed, multi-media product development/upgrade as needed to keep the Technology Truck on the road and equipped with current information on ITS/CVO technologies. This project is cost shared with the private sector and FHWA's Office of Technology Applications.

2. Loaned Outreach Liaisons - **FY 1997 Funding: $150,000 -- ISTEA**. Funds would be used to support continued partnership program with state enforcement agencies to provide a maximum of 2 individuals (on loan for 1 year) to work in the ITS/CVO Division on Outreach-related activities thus gaining valuable experience which can be taken back to the states to further efforts in the ITS/CVO arena.

3. Ribbon-cutting activities - **FY 1997 Funding: $50,000 -- ISTEA**. Funds would be used to support ribbon-cuttings activities/events involved in spotlighting successful ITS/CVO projects, deployment efforts, and program activities. This would include advancing events (travel), printing/graphic art requirements, banners, signs, posters, video production, photographic requirements, etc.

4. Speakers Bureau - **FY 1997 Funding: $10,000 -- ISTEA**. Funds would be used to support participation by requested/selected speakers who address a variety of groups regarding the ITS/CVO program, projects, cost/benefits, deployment efforts and partnership opportunities.

5. Program Management Training - **FY 1997 Funding: $200,000 -- ISTEA**
Funds would be used to continue training to OMC/Federal Aid staff members involved in monitoring/oversight/partnership implementation for ITS/CVO projects, as well as defraying travel

costs for trainers, and for state ITS/CVO counterparts to receive this training. Funds would be used to provide for HBCU and other minority college/ university students to serve as summer interns at various locations -- both in the field and at headquarters -- where they would gain hands-on experience related to the ITS/CVO Program, as well as career opportunities (public & private) available in the ITS/CVO arena.

6. Newsletter/WWW Page - **FY 1997 Funding: $40,000 -- ISTEA.** Funds would be used to defray costs for continued development, maintenance and upgrade (as necessary) of a WWW Page Newsletter on ITS/CVO projects, products, activities, partnership opportunities, deployment efforts, etc.

7. Communication/Outreach materials - **FY 1997 Funding: $40,000 -- ISTEA.** Funds would be used to cover costs of continued development and updating of printed and electronic materials used in the communications/outreach efforts of the ITS/CVO Program.

It has been the FHWA's experience that not every segment of the industry has heard about the CVISN program in enough detail to make an informed decision about participating. These funds will ensure that a substantial percentage of the industry will be educated about the benefits of ITS/CVO and CVISN.

Question. The Committee has supported the CVISN -- the Commercial Vehicle Information Systems and Networks--which will be the backbone of the ITS program to help the truck and bus industry and associated MCSAP inspectors and State regulatory officials. Why do you think it is necessary to spend so much money "mainstreaming" this prototype across the Nation?

Answer. CVISN requires that states fund interfaces for their systems and change legislation. An example of needed legislation is that many states cannot do on-line registration without changes in state laws which require a physical signature on each application. While having laws changed to allow electronic signatures in the information age seem obvious enough, it requires senior management support to obtain the necessary legislation. We recently briefed CVISN to the Board of Directors for the American Association of Motor Vehicle Administrators. These Department of Motor Vehicle (DMV) adminstrators are nationally recognized leaders and strong proponents of information age automation. Most were unaware of CVISN. The state DMV adminstrators and other state cabinet level adminstrators such as Department of Environmental Resources for HazMat, Department of Transportation for Oversize/Overweight, Public Utility Commission for Single State Registration, and Department of Revenue for Fuel Tax must be educated and presented with CVISN business plans they can endorse. "Mainstreaming" funds for CVISN will educate these hundreds of adminstrators and their thousands of staff members in all states and assist the States in developing 50 business plans. These business plans in turn will be the seed than leads to national CVISN deployment. Most state adminstrators and agencies are unaware of what other state agencies are doing with CVO, so it is impossible for them to work together without first providing education on the problem. Mainstreaming funding will provide this education and provide solutions to the problems in the form of a CVISN deployment plan.

Question. CVISN will promote automatic clearance and electronic communications of regulatory documentation. In view of these benefits, how is the trucking industry contributing to the development of CVISN? What amounts of in-kind services have been contributed? Any cash cost-sharing received?

Answer. The trucking industry is contributing to the development of CVISN through the continuing efforts of the American Trucking Association, the ATA Foundation, and the National Private Truck Council. These efforts consist of participating in the design discussions as they relate to the development of CVISN, seeking out trucking companies to participate in the operational tests, participating in focus groups sessions, taking the leadership at meetings and workshop forums to present the various aspects of CVISN, conducting stakeholder meetings to resolve any issues of concern in the CVISN development, participating in working group sessions sponsored by various organizations including USDOT and ITS America. In-kind services consist of the many voluntary roles played by the industry. Most of the participation at working group meetings or focus group meetings and other design related meetings are done at the expense of the trucking association or the trucking company. Several operational tests, like Electronic One-Stop Shopping, require the trucking companies to run dual systems in order to adequately test the project (paper plus electronic). In many cases the test has occurred during the busiest time of the year even causing more effort on the part of the trucking company.

Other voluntary in-kind participation is occurring with Advantage I-75, Help Inc., and the I-95 Corridor Coalition. On cash cost sharing, the trucking companies and industry have made significant contributions related to the development of CVISN and its components. The membership fees paid to ITS America are one example of cash contributions. Paying for travel to hundreds of meetings and to the working sessions is another example. Bringing equipment to various ribbon-cuttings and to other tests are other examples of cash contributions.

During the I-75 ribbon-cutting there were more than 20 companies that brought equipment at their own expense. Also UPS arranged for a twin trailer rig to travel from Detroit to a ribbon-cutting in Ontario, Canada with a full crew. Also not to be overlooked is the significant investment that Lockheed-Martin IMS has made in the Help Inc. project in the western United States. Electronic clearance is a component of CVISN and Help Inc.'s system will become part of the overall CVISN when fully implemented in the western states. Also Help, Inc, and its partners in the One Stop Shopping test in the states of California, Arizona and New Mexico contributed an amount ($2.1 million) that exceeded the federal share ($2.0 million).

Question. FHWA initiated several ITS projects to deal with the problem of truck drivers violating the out-of-service orders of MCSAP officers. What is the status of each of these projects? When will these projects be completed and what will they accomplish? What amount of Federal funds was contributed to each project?

Answer. Two operational tests are currently underway that will utilize technologies to provide automatic, real-time, out-of-service verification at the roadside. A project in Wisconsin/Minnesota uses license plate reader equipment and electronically shares information containing out-of-service data on specific vehicles. Subsequent downstream identification of vehicles will enable enforcement personnel to determine whether or not a vehicle is in violation of an out-of-service order. The Minnesota/Wisconsin project is on-line, and is currently in the data collection phase. The project has already demonstrated its utility by identifying a violator of an OOS order. A final evaluation report will be completed during October, 1996.

The Idaho Project will utilize RF stickers (radio frequency inspection transmitter that is read by a scanner) and computerized vehicle imaging analysis to identify out-of-service vehicles. An inspection site alarm system that would be activated when an out-of-service vehicle attempts to leave. The Idaho project is currently finalizing the evaluation plan, and has recently completed the technology development for the project. Idaho will begin field test trials and shakedown testing of the system during June, 1996. These operational tests will help determine the ability of technology to assist in dealing with motor carriers and drivers who violate out-of-service orders.

Question. In Conference Report 104-286, the conferees specified $14,500,000 for CVO, of which $6,000,000 for development and initial pilot testing of the CVO communications architecture and the purchase of transponders. Please describe in detail your progress in implementing this directive.

Answer. Agreements for prototyping the Commercial Vehicle Information System and Network (CVISN) have just been signed by the States of Maryland and Virginia. We anticipate showcasing those results in September. At the same time, we have initiated the selection process for seven model deployment sites with a request for comment on our selection criteria. After receiving feedback from the states an RFP will be issued to select the model deployment sites with final selection being made by the end of the year. In 1997, we anticipate moving directly into model deployment. Our spending plan for this effort is as follows: Two million was obligated in February to begin the clearinghouse development process. An additional 2.5 million was obligated in May 1996 to complete the architecture, coordinate with all national and state organizations on the CVISN design, and develop necessary Electronic Data Interchange standards. FHWA has selected a contractor to develop the roadside electronic verification system, interface between systems, and integrate Maryland and Virginia. Final negotiations are on-going to complete the contracting process.

Question. Please break down in detail your use of these monies on a project-by-project basis.

Answer. The $6,000,000 for CVISN (Development and initial pilot testing of the CVO Communications Architecture and the Purchase of Transponders) is discussed below in three categories of activities, i.e. (1) clearinghouse development, (2) conduct the CVISN development, and (3) provide CVISN prototype support.

(1) Clearinghouse Development

The $2.0 million supports the design, implementation, installation, test, documentation, and user training for a selected group of key CVO information systems that will be part of the CVISN Core Infrastructure. These systems will provide a mechanism for the exchange between Carriers, State Agencies, and National Clearinghouses of registration, fuel tax, and safety information. These systems will be developed in such a manner as to utilize open systems implementation and X.12 compliant Electronic Data Interchange protocols. These systems will be coordinated with a number of FHWA funded initiatives such as the SAFER system and involving pre-selected States and other organizations such as the Johns Hopkins University Applied Physics Laboratory (JHU/APL).

The CVISN Core Infrastructure Support comprises of the following subtasks:

IRP clearinghouse development
FUEL tax submittal and clearinghouse development
EDI standards coordination and implementation
CVO program support

(2) CVISN Development

The $2.5M effort will provide the FHWA with services in support of the design of commercial vehicle information systems and networks (CVISN). The effort builds on the CVISN architecture and develops a detailed system design to support prototyping and piloting of the CVISN. This role includes providing technical support to the FHWA in the following areas:

Program Planning and Coordination
System Design
Prototype Development
Model Deployment Development
Technical Compatibility Evaluation
Operational Evaluation

(3) Provide CVISN Prototype Support

The $1.5 million will allow FHWA to support the prototype states. This funding will help install roadside electronic verification, develop state specific carrier automated transaction systems, modify state systems to interoperate, operate clearinghouses in support of prototype, integrate prototype states with the clearinghouses, provide technical direction to the CVISN prototype states and provide technical support identified.

Question. Do you think the Federal Government should pay the entire expenditure for this system during the next few years? How do you propose that others share in these expenses?

Answer. Yes, It is appropriate for the Federal government to pay the entire expenditure for this system during the next few years. It requires the services of a central system development and support entity to help the states through the implementation and transition period to install and begin operating the services that comprise CVISN. Those services currently consist of:

- Distribution of safety information to computers at the roadside to target high-risk carriers.
- Use of License Plate Readers at roadside to electronically identify commercial vehicles and carriers to check safety information.
- Electronic collection of inspection data from the roadside and uploading to SAFETYNET.
- Electronic application for credentials by motor carriers.
- Interfacing of State systems to the International Registration Plan (IRP) clearinghouse.
- Interfacing of State systems to the International Fuel Tax Agreement (IFTA).
- Electronic clearance at fixed and/or mobile sites.

The prototype and pilot states will be sharing on a 50/50 basis for the model deployment of CVISN. Some of the expenses for services used in development of CVISN, such as one-stop shopping, where electronic data interchange and real time registration systems were developed, have been shared with project partners. We will be working with our partners for sharing expenses in the future, such as state associations like AAMVA and the IRP clearinghouse, and IFTA Inc. with the IFTA clearinghouse.

Question. How much will it cost to continue progress on CVISION to the point where FHWA's role should be appropriately terminated or significantly reduced?

Answer. FHWA will demonstrate CVISN projects operating among 2 prototype and 7 pilot states in FY

1997 and FY 1998. That is the purpose of the model deployment program and we expect that effort to be complete by 1998. Following the successful model deployment the program should move to a formal deployment stage which will be an issue in the reauthorization of the surface transportation legislation. Even in the early years of model deployment, the FHWA should continue to play a significant role in the development, testing and model deployment of standards, clearinghouses, safety systems, and CVISN, at least through 1999. This process will also include developing sound cost estimates to operate CVISN and document benefits for states, carriers, and others. There may be some smaller need for CVISN support after 1999, but that will be determined through the cost estimates associated with the model deployment.

Question. Please delineate your plans to transfer the Federal involvement in CVISION either to the States, AAMVA, or some other entity.

Answer. Since CVISN is just getting underway in its prototype and pilot testing phases it is too early for a definitive plan to describe the transfer of federal involvement to some other entity. The FHWA plays an essential role in motor carrier safety, and is expected to have an on-going role in CVISN. Coordination of CVISN implementation and the on-going maintenance of CVISN elements will need national coordination. Those clearinghouse activities, such as IRP and IFTA, that now are within the purview of state associations can be anticipated to turn over to state directed organizations for operation and maintenance.

Question. What progress has been made to develop and pilot test the CVO communications infrastructure(CVISION)?

Answer. In February, $2 million was obligated to begin the clearinghouse development process. Preliminary requirements for the clearinghouses have been established. The IRP Board of Directors and the IFTA Board of Directors were briefed and their support for the effort formalized. We have met with the IRP Clearinghouse pilot states. They are currently developing a project plan for upgrading their systems to interfacing with the clearinghouse. The IFTA pilot states have been identified and they have given a preliminary commitment to support the project pending state internal coordination. The CVO architecture is complete. We are coordinating with all national, state organizations, industry on the CVISN design. We are developing the necessary Electronic Data Interchange standards. We are developing the IRP and IFTA clearinghouses, and have begun the prototyping of CVISN in Maryland and Virginia.

Question. Please specify in detail the amounts that the CVO program has spent on outreach during fiscal years 1995, 1996 and planned for 1997, specifying ISTEA and GOE expenditures.

Answer. During FY 1995 and FY 1996 the ITS/CVO Division has engaged in the development of a Communications/Outreach Program Plan designed to support the ITS/CVO Program. The following is a list of the activities which support the Outreach Program Plan during fiscal years 1995, 1996 and planned for 1997:

FY 1995 Activities

1. Development, production and dissemination of the OMC ITS/CVO Field Reference Guide. Two additional updates were provided to the field during FY 1995. FY 1995 Amount: $1,200--GOE.

2. Working with contract writer to produce CVO articles for placement in a variety of publications interested in ITS/CVO technology. This has been a very productive effort resulting in articles in the Washington Times, Fortune Magazine, Engineering News Record, The Washington Post, ITS World among others. FY 1995 Amount: $3,000--ISTEA.

3. Conducting a series of Focus Group meetings designed to inform and educate the front-line users of ITS/CVO technology -- enforcement officers and truck/bus drivers -- regarding the ITS/CVO program, impact, and benefits. Focus Group meetings will continue through the end of 1996. FY 1995 Amount: $80,000-- ISTEA

4. Develop the Outreach National Training Plan for Federal and State CVO managers with a train-the-trainer prototype session scheduled for fall of 1996. Also sponsored one summer Intern as part of outreach to HBCUs. FY 1995 Amount: 100,000--ISTEA.

5. Worked with FHWA Office of Technology Applications, contractor and a Technical

Working Group to develop and implement the plan for construction of a Technology Truck to tour North America and promote ITS/CVO technologies while informing and educating targeted audiences on ITS/CVO program and benefits. Expect to formally announce Technology Truck at the ITS World Congress meeting in Orlando using a portable kiosk as the platform. Plan for truck to be officially launched on a nationwide tour in spring 1997. FY 1995--$800,000--ISTEA.

6. Hired contractor to assist in the development and implementation of a Strategic Communications/Outreach Plan for the ITS/CVO Program. This will include the design of presentation materials, portable displays, support for the Technology Truck, assistance in the production of an ITS/CVO video.
   FY 1995 Amount: $140,000--ISTEA.

7. Coordinate the ITS/CVO Speakers Bureau. This activity provides interested sources with a vehicle for obtaining speakers and presenters on a variety of ITS/CVO-related topics. FY 1995 Amount: $44,900--GOE.

8. Funded Cost/Benefit Studies of use of ITS/CVO technology by the motor carrier industry and by states. FY 1995 Amount: $400,000--GOE.

9. Produce presentation materials which can be used by field staff for meetings, briefings and other outreach opportunities. FY 1995 Amount: $30,000--ISTEA.

In FY 1996, the ITS/CVO Division expanded on the Communications/Outreach Program Plan by incorporating specific timeliness for activities and by tracking and evaluating projects. These processes were documented in the Strategic Plan for Outreach.

FY 1996 Activities

1. Worked with a contractor to complete Executive Summary of The Report on Driver Acceptance of ITS/CVO technology. Reproduced and disseminated copies. Maintain supply for requests.
   FY 1996 Amount: $2,500--GOE

2. Participating in a variety of meetings with partner ITS outreach groups to assure that the CVO technology perspective was included in the further development of outreached activities. FY 1996 Amount: $900--GOE

3. Assisting in the coordination of various public relations-type activities to promote the ITS/CVO Program (Colorado Downhill event, Southern border visit, I-75 Ribbon-cutting events). FY 1996 Amount: $22,000--ISTEA

4. Developing various multi-media materials (video tapes, fact sheets, brochures, overhead slides, etc. FY 1996 Amount: $30,000-- STEA

5. Coordinating the ITS/CVO Speakers Bureau. This activity provides interested sources with a vehicle for obtaining speakers and presenters on a variety of ITS/CVO-related topics. FY 1996 Amount: $55,100-- GOE

6. Sponsoring two (FY 1996) individuals on loan from state agencies who are involved in gaining experience in the development and implementation of ITS/CVO outreach activities on a national basis. FY 1996 Amount: $169,500--ISTEA

7. Produced an outreached document detailing the CVISN program for use at various meetings, events and forums. For budgeting purposes, because periodic reproductions for various events are ongoing, they are difficult to estimate. FY 1996 Amount: Undetermined at this time.

The 1997 Outreached Budget includes funding requests for the following specific outreach projects designed to support efforts to inform and educate selected audiences regarding the ITS/CVO Program objectives, issues, activities, and cost/benefits as well as to gain input and insight to guide program development.

1. Technology Truck - FY 1997 Funding: $160,000--ISTEA. Funds would be used to support continued development/deployment of the DP111 Technology Truck. Funding would be used generally to focus on costs

connected with kiosk information development/upgrade as needed, printed materials production/reproduction as needed, multimedia product development/upgrade as needed to keep the Technology Truck on the road and equipped with current information int ITS/CVO technologies. This project is cost shared with the private sector and FHWA's Office of Technology Applications.

2. Loaned Outreach Liaisons - FY 1997 Funding: $150,000--ISTEA. Funds would be used to support continued partnership program with state enforcement agencies to provide a Maximum of 2 individuals (on loan for 1 year) to work in the ITS/CVO Division on Outreach-related activities thus gaining valuable experience which can be taken back to states to further efforts in the ITS/CVO area.

3. Ribbon-cutting activities - FY 1997 Funding: $50,000--ISTEA.
Funds would be used to support ribbon-cuttings activities/events involved in spotlighting successful ITS/CVO projects, deployment efforts, and program activities. This would include advancing events (travel), printing/graphic art requirements, banners, signs, posters, video production, photographic requirements, etc.

4. Speakers Bureau - FY 1997 Funding: $10,000--ISTEA.
Funds would be used to support participation by requested/selected speakers who address a variety of groups regarding the ITS/CVO program, projects, cost/benefits, deployment efforts and partnership opportunities.

5. Training - FY 1997 Funding: $210,000--ISTEA
Funds would be used to continue training to OMC/Federal Aid staff members involved in monitoring/oversight/partnership implementation for ITS/CVO projects, as well as defraying travel costs for trainers, and for state ITS/CVO counterparts to receive this training. Funds would be used to provide for HBCU and other minority college/university students to serve as summer interns at various locations-- both in the field and at headquarters--where they

would gain hands-on experience related to the ITS/CVO Program, as well as career opportunities (public and private) available in the ITS/CVO arena.

6. Newsletter/WWW Page - FY 1997 Funding: $40,000--ISTEA Funds would be used to defray costs for continued development, maintenance and upgrade (as necessary) of a WWW Page Newsletter on ITS/CVO projects, products, activities, partnership opportunities, deployment efforts, etc.

7. Communication/Outreach Materials - FY 1997 Funding: $40,000--ISTEA. Funds would be used to cover costs of continued development and updating of printed and electronic materials used in the communications/outreach efforts of the ITS/CVO Program.

Question. For each of the last three fiscal years, please list specific research and operational test projects (and funding amounts) that FHWA is sponsoring as part of the CVO program in which safety dynamics receive prominent attention.

Answer. The following is a breakdown of all research and operational tests in which safety dynamics receive prominent attention in FY 1993 - 95. The figures reflect the amounts committed or programmed to the projects. This list includes only those projects with a "dynamic" safety aspect.

ITS/CVO Safety Dynamics

FY 1993	
West Virginia-Nepean Roller Dynamometer Brake Testing Device	$155,000
Oregon-Renstar Infra-red Brake Testing System	24,000
Battelle-Development, Testing and Application of Brake Testing Devices	343,877
Total	$522,877

FY 1994	
Automated Roadside Safety Inspections/Brake Inspection Technologies	$952,130
Calspan Imaging Analysis	189,316
Size and Weight (WIM station design)	125,000
Total	$1,266,466

FY 1995	
CVO System Design	$1,000,000
Roadside Verification	6,155,000
On-board Safety Monitoring	1,008,000
Automated Compliance Review	500,000
Hazardous Materials	350,000
CVO Institutional State Studies	604,000
Commercial Vehicle Information Systems	750,000
Partnerships, Education, Training	380,000
Total	$10,747,000

OFFICE OF MOTOR CARRIERS

Question. What recent statistical and analytical data do you have to show that your compliance review program results in reductions in crashes of the carriers subject to your review? When were these studies conducted and what was the sample size?

Answer. FHWA policy is to focus its on-site compliance review (CR) efforts on motor carriers that present the greatest potential risk to traffic safety. The goals of the CR program are to improve motor carrier compliance with applicable safety regulations and reduce motor carrier involvement in recordable preventable crashes. The success of FHWA's efforts are mirrored by FY 1995 program data. In May 1996, FHWA analyzed approximately 4,600 CRS that had been conducted by FHWA or State safety specialists during FY 1995 on interstate motor carriers that had a previous CR or safety review and received a safety rating. The analysis showed that about 65 percent of the potentially high-risk carriers were not involved in any recordable preventable crashes during the 12 months prior to their FY 1995 CR. This affirms the positive impact the prior CR had on the motor carriers' safety compliance. Thirty-two percent of the potentially high-risk motor carriers suffered an increase in their recordable preventable crash rate. The remaining 3 percent still experienced some recordable preventable crashes, but their rate declined relative to their prior CR.

Question. What data exist to show that when a carrier improves its safety rating, partly as a result of your efforts or presence, there is an improvement in the safety performance (including crash experience) of this carrier? How old and reliable are these data?

Answer. In May 1996, FHWA analyzed approximately 4,600 compliance reviews (CRs) that had been conducted by FHWA safety investigators during FY 1996 on interstate motor carriers that had a previous CR or safety review and received a safety rating. A safety rating is the "performance-based," objective criterion that FHWA uses to assess a motor carrier's compliance with the Federal Motor Carrier Safety Regulations, applicable Hazardous Materials Regulations, and its operational safety. An improvement in a motor carrier's safety rating (from unsatisfactory to conditional or satisfactory, or from conditional to satisfactory) indicates an improvement in the safety performance of the motor carrier. The analysis showed that motor carriers received improved safety ratings 38 percent of the time, worse safety ratings 24 percent of the time, and the same safety rating 38 percent of the time. For those motor carriers receiving improved safety ratings, their recordable preventable crash rates declined 30 percent of the time, increased 23 percent of the time, and remained the same 47 percent of the time.

About 65 percent of the motor carriers receiving CRs were not involved in any recordable, preventable crashes during the 12 months prior to the CR. As such, insufficient data exist with which to evaluate the effectiveness of the safety rating activity. The FHWA is planning efforts to look into the relationship between safety programs and motor carrier compliance, and the relationship between FHWA safety regulations and safety.

Question. Has the backlog of enforcement cases at headquarters ever led to an FHWA official telling FHWA regional staff to settle cases expeditiously and to try not to send disputed cases to headquarters?

Answer. No FHWA official has instructed FHWA regional staff to settle cases in order to avoid adding to the headquarters case backlog. The need to settle enforcement cases at the regional level is frequently discussed at Regional Director's meetings and other meetings involving the field staff. We believe that emphasis should be placed on developing negotiation skills, uniform and fair penalty assessments, and expeditious justice to settle these enforcement cases. These efforts should help to reduce the backlog.

Question. For each of the last 2 years, what is the average amount of time between when a disputed case is submitted to headquarters and when it either receives an ALJ hearing or a final order by the Associate Administrator for Motor Carriers?

Answer. For each of the last two years, the amount of time between submission of a case to the Associate Administrator and a decision on the merits or assignment to the ALJ has been approximately 11 months. Of numerous cases pending before the Associate Administrator, the average time they have been waiting for a decision is 9 months. Numerous new cases have been pending for 1-4 months and several older cases have been pending for 17-35 months.

Question. Does this backlog allow cases to grow "stale" and does this interfere with implementation of an effective enforcement program?

Answer. The cases rarely grow "stale" because the vast majority of the evidence is documentary in nature. Human memories fade and shift with the passage of time, but the defenses offered by motor carriers rarely depend on personal testimony. In one instance; however, the regulation the motor carrier was charged with violating had been rescinded before the case was decided. Those counts were dismissed by the Associate Administrator "in the interests of justice." [In the Matter of Lenertz, Inc. (Docket No. R5-93-193), decided June 16, 1994; seven counts of failing to report an accident were dismissed because Part 394 had in the meantime been replaced by § 390.15.]

Nonetheless, an enforcement backlog does interfere with implementation of an effective enforcement program because it may encourage motor carriers to believe that they can escape almost indefinitely the consequences of violating the FMCSRs. Under these circumstances, their interest in settling cases is understandably reduced.

Question. During each of the last three years, how many enforcement cases did you drop because they were judged too old to prosecute?

Answer. The Associate Administrator for Motor Carriers has not dismissed any case simply because it was too old during any of the past three years. Any case which was dropped was due to insufficient evidence or additional information provided by the carrier which warranted mitigating the enforcement action. Each of these reasons is documented in the proceedings of each case.

Question. What are you doing to address each of the problem areas identified in the line of questioning presented above?

Answer. FHWA is taking definitive steps to reduce the backlog of headquarters cases to a manageable level which can be handled expeditiously. It is doing so by adding temporary legal staff to the process, detailing Assistant Regional Counsel's to headquarters on rotational assignments, and by hiring a full-time attorney to assist in resolving disputed cases awaiting the Associate Administrator's decision. FHWA believes this action will resolve those problems related to the backlog of enforcement cases.

Question. How many bus operations have been rated? What is the distribution of these ratings? How many more bus operations remain to be rated? In view of the importance of this transportation activity, how do you propose to increase the emphasis placed on these carriers? Do you have a plan to visit each of these unrated passenger carriers during the next year?

Answer. There are approximately 9,500 passenger carriers identified in the Motor Carrier Management Information System. This includes more than 550 limousine operations and nearly 2,400 private carriers of passengers which are exempt from many portions of the regulations and are not assigned safety ratings. As of March 1996, 3,000 passenger carriers had been rated and approximately 3,550 passenger carriers had not been rated. The distribution of the ratings is: 83 percent Satisfactory; 16 percent Conditional; and 1 percent Unsatisfactory.

The FHWA does not plan to visit each unrated passenger carrier next year. As FHWA further develops a prioritization system designed to rank motor carriers based on performance or relative risk, it will provide current safety information regarding the highest risk carriers thereby providing the opportunity to maximize the effectiveness of our compliance activities. FHWA is continuing to place significant emphasis on passenger transportation through specialized inspection training which has been designed and is being taught to our State MCSAP partners. Utilizing this passenger carrier inspection training, the States will be providing timely and accurate performance-based information regarding a larger population of passenger carriers, therefore allowing FHWA to target for review those motor carriers having accidents and poor driver/vehicle inspection histories.

Question. Several key industry leaders have informed the Subcommittee that the proposed final regulations for the Intermodal Safe Container Act would have created a paperwork nightmare for shippers and carriers. The FHWA itself recognized the problems with its proposal and delayed the effective date so changes could be made. When will reasonable and acceptable regulations be issued to implement this Act?

Answer. The FHWA extended the effective date of the regulations to allow the intermodal transportation industry sufficient time to comply by means of electronic data interchange and to allow the agency, the industry, and other parties enough time to inform affected domestic and foreign entities of their responsibilities.

A tangible certification must accompany an intermodal container or trailer during highway transportation. A statutory provision of the Act necessitates this paperwork requirement. Without it, roadside enforcement officials would have no way to exercise the State's right of impoundment under the Act. The Act prohibits a motor carrier from transporting an intermodal container or trailer prior to receiving a certification.

The implementing regulations are scheduled to become effective on September 1, 1996. The FHWA has received two petitions for exemptions and amendments from the implementing regulations. The FHWA has an ongoing rulemaking proceeding which will respond to these petitions. The petitioners have twice requested the FHWA to defer decision on their petitions. The second deferral was requested so that the petitioners could seek legislative amendments to the Act. The petitions or possible statutory amendments may affect the September 1 effective date. For example, if the petitions result in amendments to the regulations, industry needs a reasonable period of time to become familiar with the regulatory changes and take necessary actions for compliance. Subsequent legislative changes, if made, could result in an additional rulemaking action.

Question. Please provide a breakdown of the number of OMC employees working in the field who can be classified as supervisors or managers and the number of safety investigators who are actually conducting compliance reviews. Please compare this allocation to the personnel distribution during the last few years.

Answer. The information is provided in the following chart.

DISTRIBUTION OF FIELD STAFFING					
	Supervisors	Program Managers/ Specialists	Safety Investigators	Support Staff	TOTAL
1994 (09/30)	58	131	271	78	538
1995 (09/30)	50	130	254	77	511
1996 (04/30)	45	132	243	79	499

Question. Please summarize the inspection results obtained during the 1995 National Roadcheck.

Answer. Roadcheck '95 was a cooperative effort to enhance routine monitoring of commercial motor vehicles by providing concentrated coverage, making it possible to inspect a larger percentage of traffic in a shorter period of time. Roadcheck '95 began at 12:01 a.m., June 20, 1995, and ended at midnight June 22, 1995. A daily average of 200 jurisdictions in Canada, the United States, and Mexico inspected commercial motor vehicles at 293 inspection sites. Daily, an average of 3,298 Provincial, State and Federal officials participated in the activities.

During Roadcheck '95 a total of 54,067 driver/truck inspections were performed. This resulted in 11,612 (21.5 percent) of trucks being placed out-of-service and 3,376 (6.2 percent) drivers removed from service. Overall, a total of 105,016 driver/vehicle violations were detected.

Question. Please discuss the current motor carrier safety rating system, the changes that have been incorporated into the process, the amount of money you intend to spend during FY 1996 and FY 1997 to improve the system, and whether the rating system could reflect a stricter penalty for at-fault crashes.

Answer. The FHWA gathers information through an in-depth examination of the motor carrier's compliance with identified acute or critical regulations of the FMCSRs and HMRs.

"Acute" are those identified regulations, where noncompliance is so severe to require immediate corrective actions by a motor carrier regardless of the overall safety posture of the motor carrier. "Critical" are those identified regulations, where noncompliance relates to management and/or operational controls.

The compliance with five regulatory factors, (1) parts 387 (Financial Responsibility) and 390 (Applicability and Definitions); (2) parts 383 (Commercial Driver's Licence) and 391 (Driver's Qualifications); (3) parts 392 (Driving of Motor Vehicles) and 395 (Hours of Service); (4) parts 393 (Parts and Accessories Necessary for Safety Operation) and 396 (Inspection, Repair, and Maintenance), when there are less than 3 vehicle inspections in the last 12 months; and (5) parts 397 (Transportation of Hazardous Materials) and 177 (Carriage by Public Highway), are evaluated. In addition to the five regulatory rating factors, a sixth factor addresses the accident history of the motor carrier. Based on the assessment and point scale, a "satisfactory," "conditional," or "unsatisfactory" rating is derived.

The current system has been improved over the last three fiscal years by making it more performance oriented. Vehicle out-of-service rates are now used as a first indicator in evaluating the vehicle factor if there are more than 3 vehicle inspections in the last 12 months. Violations of acute and patterns of violations of critical regulations are utilized in determining compliance with the safety and applicable hazardous materials regulations. The accident factor (recordable/preventable accident rate) was modified to exclude the accident rates for all motor carriers that have only one recordable/preventable accident in the 12 months prior to the compliance review. Those motor carriers operating entirely in less than a 100 air-mile radius (normally urban areas) are given higher thresholds for the accident factor.

The FHWA intends to spend $300,000 in FY96 and $500,000 in FY97 to improve the process. The rating system does not have a penalty for at-fault crashes. However, we are considering giving more weight in the rating formula to the accident factor, whether it be the current recordable/preventable rate or an overall recordable accident rate.

Question. Please update us on your efforts to make the selective compliance and enforcement list more targeted at high risk carriers. How do you measure risk? How will you use the FY96 and FY97 funds to improve the targeting process?

Answer. OMC intends to replace the current Selective Compliance and Enforcement prioritization methodology with a new system that more accurately and consistently identifies high risk carriers. That system, referred to as Safestat, is currently being tested as part of the Commercial Vehicle Information System pilot program. Risk is measured in terms of an overall safety performance score - the higher the score the higher the safety risk. Carriers with the worst scores are scheduled immediately for a compliance review.

The best way to improve targeting of high-risk carriers is to improve the quality of the safety data upon which the Safestat score is computed. FY96 and FY97 funds will be used to improve the amount, quality, timeliness and accuracy of accident, inspection and compliance review information; expand the use of pen-based computers and standardized software for accident reporting; and cultivate new sources of safety data (e.g., moving violations and perhaps citation information) for input into the Safestat algorithm.

Question. Please update us on your accident countermeasures program, including the new component dealing with hazmat carriers.

Answer. Each OMC Regional office conducted a 2-year Accident Countermeasures (ACM) pilot. The pilots were designed to test the effectiveness of the ACM and to evaluate different methods of application. The results indicate that the ACM are most effective when provided to high-risk motor carriers that have unsatisfactory accident rates.

The ACM are an excellent educational tool, are of benefit to all motor carriers experiencing accidents, and are now publicly available. In fact, because of the high demand from the industry to prevent accidents, FHWA Safety Specialists and State counterparts are able to provide the complete ACM program to motor carriers at the time of the compliance review via laptop computer software. This is provided on either a computer disk or in printed form.

The new component to the ACM program is the *Hazardous Materials Incident Prevention Manual.* This manual has been designed to assist hazardous materials motor carriers and shippers in reducing the number of such incidents. A companion training videotape is in production for use by Safety Specialists and State counterparts, and will be distributed with copies of the manual. The content of the manual and the incident prevention guidelines will soon be integrated into the laptop computer software program at the time of the carrier and/or shipper review. The OMC originally intended to make this new manual available free to the States and the industry; however, funding was not adequate.

Question. What have you done to implement or respond to each of the major recommendations of your "Truck Safety" summit and how do you intend to implement these?

Answer. First, OMC surveyed Summit partners to identify actions underway in each issue area. As a result of that survey, the 17 issues identified at the Summit were reorganized into 10. Each of them and OMC's actions are discussed below:

FATIGUE

- OMC's **"Driver Fatigue and Alertness Study"** is accumulating baseline data to address fatigue with aims to: (1) provide a technically sound basis to evaluate hours-of-service requirements and (2) develop countermeasures to reduce fatigue and increase driver alertness. The results of this study are expected in the summer of 1996.
- **Safety Week Theme.** OMC emphasized "reducing crashes by eliminating driver error" as the theme for the 1995 Roadcheck campaign. Over 54,000 truck drivers received "Wake Up," a fatigue informational brochure developed cooperatively with the American Automobile Association Foundation for Traffic Safety, Commercial Vehicle Safety Alliance (CVSA), National Private Truck Council, American Automobile Association (AAA) and the American Trucking Associations (ATA).

DATA AND INFORMATION

- **OMC's Strategic Plan** was developed for 1996 using Summit issues and data.
- **10-State Grant.** Nearly 49 percent of fatal crashes involving large trucks occurred in 10 States--California, Texas, Florida, Pennsylvania, New York, Georgia, Ohio, North Carolina, Michigan and Illinois. Through MCSAP, OMC is helping identify unique problems and implement strategies to reduce the highest percentage of truck crashes in each State.
- **Crash Problems.** OMC is designing actions in its strategic plan to address head-on collisions, intersection involvements and the age of the truck driver relative to crashes.
- **TCADS.** OMC is developing a Truck Crash Analysis Data System, based on a sample of select State crash databases, to infer contributing factors in truck-involved crashes.
- **Crash Reconstruction Project.** OMC is working to improve crash investigation data and, with Minnesota, to develop a training course to improve the uniformity of such data.

DRIVER TRAINING

- **OMC Analysis.** Fatal truck crash data tells us that the driver of the car is cited about two times as often as the truck driver for reckless behavior. When alcohol is involved, it is six or seven times more likely to be the driver of the car who is impaired. OMC is designing strategies to address these concerns.
- **Driver Training Report.** OMC sent Congress a report concluding that training provided in the private sector does not meet current demands of the industry.

TECHNOLOGY

- **Pen-based Computers.** Pen-based computers are now being used to record the results of roadside inspections, especially on the southern border to improve timeliness of information needed to identify and track a carrier's safety performance.
- **Braking Field Tests.** OMC is field testing several prototype performance-based brake testing technologies to better target vehicles for inspection and improve the efficiency of roadside inspections.
- **Performance-Based Braking Standards.** OMC is developing performance-based brake testing standards and on-board monitoring systems and fostering development of improved braking systems, such as anti-lock and electronic braking systems.
- **Driver Fitness for Duty.** OMC is sponsoring research to further use technology to measure drivers' fitness for duty rather than arbitrarily prescribing the number of hours. An example is OMC's study of the effectiveness of in-cab miniaturized computers.

UNIFORM REGULATIONS

- **MCSAP.** OMC, through the MCSAP, encourages States to adopt and enforce uniform motor carrier safety and hazardous materials regulations for both interstate and intrastate motor carriers and drivers.
- **Uniform Enforcement.** OMC works with States and the CVSA to coordinate inspection and enforcement activities to avoid duplication of effort and promote compliance with uniform safety requirements. And, through the Judicial Outreach Program, OMC has developed training materials for the judiciary.

WORKING CONDITIONS

- **Focus Group Study.** OMC will conduct focus groups this summer of drivers, dispatchers, shippers, and others. Results will help determine what practices exist in the industry, and what sectors of the industry are most prone to working condition problems. This will help us design a comprehensive study.

- **Statistical Analysis.** OMC will analyze the relationship between hours-of-service violations and various driver and vehicle characteristics by evaluating data from a project involving covert verification of drivers' violations of out-of-service orders.
- **Comprehensive Study.** OMC will develop a plan to study shipper responsibility, based on our focus groups and statistical analysis with an industry advisory panel.

PARTNERSHIP

- **Issue Leaders Symposium.** OMC brought together designated leaders for each of the issues. Issue leaders will continue the Summit partnership and design an action plan for the community to address *together* the ten priority issues. They will meet again in July.-**Bus Summit and Cargo Tank Roundtable** held to address these groups' issues.
- **Law Enforcement and Truckers for Safety Grant.** Awarded to Maryland to develop a program for troopers and truckers to ride with each other to learn and share responsibility on the road and to help develop enforcement cues.
- **No-Zone Campaign.** Campaign designed to educate the public about techniques for safely sharing the road with large vehicles. With the National Safety Council, AAA, ATA, Roadway, 3M and Georgia Motor Trucking Association, OMC sponsors a moving display and a "name the character" contest. A nationwide contest was held in high schools to name the No-Zone TV character.
- **Pedestrian Brochure.** In cooperation with the FHWA Highway Safety Office, OMC is designing a brochure focusing on pedestrians and trucks.

SIZE AND WEIGHT

- **Enforcement.** OMC monitors State compliance with Interstate System vehicle weight limitations and weight enforcement. States need to comply to receive the full annual apportionment of Federal-aid transportation/highway funds.
- **Comprehensive Study.** FHWA is estimating the net effects of regulatory options. The study plan includes activities in six major areas: safety, freight market analysis, multi-modal transportation industry analysis, highway infrastructure impact and operations, performance-based and other approaches to truck size and

weight regulation, and comprehensive analysis of benefits and costs of policy options. The study will be completed in December 1996.

INFRASTRUCTURE

- **NHS.** The FHWA's primary function is to work with the States on improving the capacity and safety of our highway system with special emphasis on the newly designated National Highway System.
- **Grade Crossing Action Plan.** DOT's Rail-Highway Grade Crossing Safety Action Plan includes steps to take with partners to improve grade crossing safety regarding commercial vehicles. A supplemental report "Accidents That Shouldn't Happen," calls for improvements in driver licensing and identification of problem crossings.

FUNDING

- **MCSAP.** Funding increased 30 percent over the last 4 years, and OMC has requested further increases for FY97.
- **Research and Development.** Funding increased 76 percent over the last 4 years, and OMC has requested further increases for FY97.
- **10-State Grant.** OMC set aside $1 million in MCSAP funds to help those 10 States, which have nearly half of the large trucks involved in fatal crashes nationwide, develop safety strategies.
- **CVO/ITS.** $14 million is available for technology development and deployment in FY96.

Question. OMC implements its safety and compliance program through a national network of nine regional and 66 field offices. Why does OMC need so many officers? (In your answer please prepare a justification that proves the need for so many separate offices.) Couldn't some of the field offices be incorporated into the FHWA regional offices?

Answer. The OMC regulates approximately 360,000 motor carriers located throughout the United States with a field staff of less than 550. The OMC, primarily through our national network of region and field offices, deals directly and day-to-day with many of these carriers, as well as other licensing agencies and State enforcement officials. We believe strongly that the efforts of our region and field offices has contributed greatly to our vision of a crash-free environment and that centralizing the field staff into Regional offices would negatively impact OMC's ability to accomplish its mission of improving motor carrier safety compliance and reducing commercial vehicle accidents. In fact, OMC has undertaken a study of our region and field offices to see if some efficiencies could be achieved by streamlining operations and to focus more resources toward front-line compliance and safety activities.

Decentralization at various field office locations enables the field staff to conduct education, compliance and enforcement activities with minimal resources lost in travel time and expenses. Fifty-two of our field offices are FHWA Division offices which facilitate our management of the MCSAP in addition to the direct Federal initiatives. The remaining 14 are detached field offices which were established in recognition of the significant amount of travel required to conduct activities in areas having large concentrations of motor carriers (e.g. Los Angeles, CA or New York, NY) and the importance of customer availability.

In furtherance of the need to decentralize, telecommuting options are currently under consideration with the view toward reducing offices where possible. Through this initiative, one detached office has already been closed as a result of employee participation in telecommuting, with no reduction in customer service. We will continue to look at this issue, bearing in mind program effectiveness and administrative efficiencies.

Question. Please prepare a table listing the number of professionals in the regional and divisional offices versus the number of professionals assigned to headquarters for each of the last three years. Please group these personnel into specific categories of tasks that will help us better understand the functioning of the OMC. For example, the number of managers versus safety specialists, or hazmat specialists versus bus specialists, or MCSAP program managers versus Federal program mangers, etc.

Answer. The information is provided in the following chart.

Staffing By Selected Functions

	Supervisors		Hazardous Materials Managers/ Specialists		Federal Program Managers/ Specialists		State Program Specialists		Computer Specialists	
	HQ	FLD	HQ	FLD	HQ	FLD	HQ	FLD	HQ	FLD
1994 (09/30)	21	58	5	29	8	26	12	25	2	9
1995 (09/30)	14	50	6	26	6	24	10	25	2	7
1996 (04/30)	18*	45	4	24	6	21	11	22	2	9

* Includes an additional 5 supervisors/managers as a result of the former Interstate Commerce Commission transfer to the Office of Motor Carriers.

The table does not represent total OMC staffing, this table is for comparison of field/headquarter staffing by selected functions.

Question. Please discuss in detail your progress in implementing each of the exemptions or waiver programs specified in the NHS Designation Act of 1995.

Answer. Section 345 of the NHS Designation Act provided five specific truck-related exemptions: four from the hours of service regulations and one from the Commercial Driver's License (CDL) requirements. By law, exemptions for agricultural retailers and water well drillers took effect immediately; exemptions for operators of construction vehicles, utility vehicles and CDL operators of emergency snow removal vehicles became effective on May 28, 1996. The FHWA issued a final rule on April 3, 1996, implementing all of the exemptions. We proceeded directly to a final rule because although the NHS legislation gave the Secretary the right (after public hearing) to modify or revoke an exemption (or prevent it from going into effect), the Act created a standard for that action that was incapable of being met. The NHS Act states that the Secretary can so act only after finding an exemption is "not in the public interest," and would have a "significant adverse impact on the safety of commercial motor vehicles." "Significant adverse impact," in particular, was a new, and higher, standard than OMC had previously been required to meet to establish an exemption or waiver. The data to support a finding of "significant adverse impact" is simply not available because this agency does not track the safety record of motor carriers *by industry*. And we knew that conducting a hearing could not produce it. We felt the best approach was to develop a plan to effectively monitor and begin to collect the needed data. That plan is now being developed.

We are currently preparing an Advance Notice of Proposed Rulemaking (ANPRM) to address all hours-of-service issues, including those involved with the Section 345 exemptions. We expect to issue this ANPRM in June 1996.

Section 344 of the NHS Act provides for a Safety Demonstration Program for interstate commercial motor vehicles with a gross vehicle weight rating between 10,001 and 26,000 pounds, inclusive. We are now in the process of preparing the appropriate Federal Register notice to obtain public comment on the design of this program as called for in the legislation and expect to publish it in June of 1996.

Section 346 of the NHS Act provides for a Winter Home Heating Oil Delivery State Flexibility Program. This program will allow drivers of commercial motor vehicles making home heating oil deliveries within a 100 air-mile radius from a central distribution point to end any period of 7 or 8 consecutive days with the beginning of an off-duty period of 24 or more consecutive hours for the purposes of determining maximum on-duty time. The program will begin November 1, 1996, and end April 30, 1997. We are now in the process of preparing the appropriate Federal Register notice to obtain public comment on the design and implementation of the program and expect to publish it in June of 1996.

Question. How will you periodically monitor the safety performance of the holders of any waivers granted under the NHS Designation Act? How will this impact your other safety oversight responsibilities?

Answer. Section 345 of the NHS Designation Act provided five specific truck-related exemptions: four from the hours-of-service regulations and one from the CDL requirements. Through rulemaking and outreach efforts with representative industry associations, the FHWA will identify motor carriers that may potentially take advantage of the exemptions. Qualifying motor carriers will be given FHWA letters identifying them to law enforcement personnel.

The motor carriers will be asked to electronically submit performance data (e.g., accidents) to the FHWA through mechanisms developed as part of the Automated Safety Assessment Program. A random selection of these carriers will also be subject to on-site compliance reviews conducted by Federal and/or State personnel to validate information submitted by the companies.

The FHWA will analyze this data in addition to data collected through existing programs to determine if public safety has been adversely effected by the exemptions. We do not anticipate that this monitoring process will have a significant impact on our other safety oversight responsibilities.

Question. How will you ensure that participants in this pilot program maintain current and complete registers of crashes? How do you propose to deal with carriers that fail to maintain such registers?

Answer. Section 344 of the NHS Designation Act provides for a Safety Demonstration Program for interstate commercial motor vehicles with a gross vehicle weight rating between 10,001 and 26,000 pounds, inclusive. Applications for participation in the program are to be accepted beginning on or before August 23, 1996. Motor carriers participating in the program must agree to provide the FHWA with information concerning all police-reported accidents involving program vehicles and/or drivers. At this time, the FHWA plans to ask participating motor carriers to electronically submit the accident data to the FHWA through mechanisms developed as part of the Automated Safety Assessment Program. With contractor assistance, the FHWA will match reported accidents with accident information available in FHWA and other data bases. In addition, random on-site reviews will be conducted on carriers to validate the completeness and accuracy of the submitted accident information. Carriers that are not complying with program requirements may be removed from the program.

Question. How will you conduct a sufficient number of random checks to promote the adequacy and accuracy of such register against insurance records of said carriers? How will you monitor the safety performance of these carriers?

Answer. Motor carriers participating in the program must agree to provide the FHWA with information concerning all police-reported accidents involving vehicles and/or drivers. At this time, the FHWA plans to ask participating motor carriers to electronically submit the accident data to the FHWA through mechanisms developed as part of the Automated Safety Assessment Program. With contractor assistance, the FHWA will be able to match carrier reported accident information with accident information available in the FHWA and other data bases, including insurance records. Carriers discovered to be under reporting will be subject to a compliance review, possible enforcement action, and possible removal from the program.

The safety performance of these carriers will also be monitored in the same manner as other carriers, through driver/vehicle roadside inspections, National Governor's Association accident data and compliance reviews.

Question. For each of the last three years, what was the current backlog of enforcement cases awaiting a final order or a hearing by an administrative law judge? How many legal staff at FHWA work on these cases?

Answer. The FHWA had 91 enforcement cases pending before the Associate Administrator (AA) or an Administrative Law Judge (ALJ) on January 1, 1994; 58 cases pending before the AA or an ALJ on January 1, 1995; and 86 cases pending before the AA or an ALJ on January 1, 1996.

Some cases were classified as pending simply because no decision had been issued, but others remained open for longer periods of time because of the intensity of the litigation. Procedural maneuvering before, and reconsideration after a decision, account for a substantial number of open cases.

Question. As reported in the Winter 1995 CVSA magazine, OMC field staff have asked headquarters for better IFTA/IRP records, a standard problem driver report and license history through CDLIS, better hazmat data on carriers and shippers, a national accident countermeasure database, passenger and hazmat carrier ranking and tracking systems, and a complaint register system. Please discuss how you have responded to each of these suggestion and specify your FY 1997 funding request regarding each of these areas.

Answer. The Winter 1995 CVSA magazine article discussed the creation of the OMC's Analysis Division and the work it is doing to help OMC center on analysis and to integrate the analysis function into policy and programs. The field staff requests that are referenced in the question were cited in the article as some of the suggestions which the field staff had for "new data to include in the OMC database".

As a direct result of their suggestions, an Analytic Strategic Plan was developed by the Analysis Division. The ideas and direction in this plan were confirmed at the Truck and Bus Safety Summit and the follow-up work from the Summit. Much progress has been made in implementing this plan over the last 2 years.

The OMC's plans include $3,305,000 in FY 1997 for activities related to updating and implementing the analytic strategic plan.

A key element of these activities, that addresses the suggestions offered by the Field staff, is the Truck and Bus Crash Analysis Data System. This system, which OMC is in the process of developing, will sample accident data from selected states and will include hazmat data fields, accident countermeasure information, and many driver information data fields, along with information about the other vehicle involved in the crash. Plans include $350,000 in FY 1997 funds to support ongoing work on this database.

The suggestions offered by the field staff that are not directly addressed by efforts to implement the Analytic Strategic Plan are those related to IRP/IFTA and a standard problem driver report and license history through CDLIS. For IRP/IFTA, OMC is making a deliberate effort to incorporate the types of data which are collected as part of the IRP/IFTA in our analysis efforts by assessing how the data can be useful to OMC. For improving information about problem drivers, OMC is expanding access to driver status in CDLIS, at roadside inspections, through the use of the pen-based software and also through a direct dial-up capability in the computers used by OMC field staff and our MCSAP state partners. Also, OMC with NHTSA, is assessing the feasibility of ways to connect all existing driver information systems--the NDR/Problem Driver Pointer System, the CDLIS and the Driver License Reciprocity System--to better identify and track problem drivers and to ensure that the concept of "one driver, one license and one driver history" can be achieved. The first phase of this work, to describe the specifics of each system, is complete and OMC is now working with the NHTSA to define the next steps needed to create an all-driver pointer system.

Question. During each of the last two years, what specific documents or training materials have you delivered to the judicial community regarding truck and bus safety regulations? Any materials specific to CDL and alcohol restrictions for commercial drivers? How many meetings did you have with prosecutors or judges on these subjects during the last year? How much of your FY 1996 and FY 1997 budget will be spent on this area?

Answer. The Judicial/Executive Overview Program (JOP) supports the reduction of commercial motor vehicle crashes through a strategy to ensure appropriate and uniform adjudication of motor vehicle safety regulations violations, including fines and penalties, which result in driver and carrier behavior modification and vehicle repair. This strategy will be accomplished through two mechanisms: the institutionalization of formal training for judges, prosecutors and law enforcement personnel and development of a network of State presenters delivering basic motor carrier information to judges and other State executive audiences.

Although documents and training materials were not delivered to the judicial community on a national scale, the FHWA developed formal continuing education courses for the judiciary, prosecutors and law enforcement groups in 1993 and 1994 to provide regulatory and enforcement guidance. The courses include information on 0.04 percent blood alcohol concentration and driver disqualifications. In 1995, the courses were pilot tested and a marketing strategy was developed. Since meetings with prosecutors and judges occur frequently on many motor carrier safety enforcement activities, with a wide range of Federal, State and even local enforcement officials, we have no estimate of how often CDL and alcohol restrictions are discussed.

With the $150,000 provided by Congress in FY 1996, the FHWA entered into an interagency agreement with the National Highway Traffic Safety Administration to revise and test the existing course curricula for judges and prosecutors. These curricula are being revised by the National Judicial College and the National Association of Prosecutor Coordinators and will be pilot tested in July and August 1996. Revision of the existing training curriculum for law enforcement personnel by the International Association of Chiefs of Police also has begun. In FY 1997, the course curricula for the judiciary and prosecutors are expected to be ready for final distribution, and a draft revision of the law enforcement training module will be pilot tested. The result of these efforts will be to institutionalize training for judges, prosecutors and law enforcement personnel on enforcing and adjudicating serious and disqualifying driver offenses and motor carrier violations.

In addition to the formal course curricula, the International Association of Directors of Law Enforcement Standards and Training (IADLEST) conducted two courses earlier this year to train State presenters in the delivery of basic commercial motor vehicle safety information to judicial and other high-level State executive audiences (court officials, prosecutors, legislators, etc.). Through presentations, these trained presenters will assure that judges and other State executives better understand the severity of Federal Motor Carrier Safety Regulations violations and that these important partners effectively impact commercial motor vehicle safety through the administration of appropriate fines and adjudication. The State presenters will be the essential elements of a national JOP network supported by a dynamic system of communications, presentation updates and annual conferences.

In the remainder of FY 1996, we will conduct up to two additional presenters' training courses through IADLEST and will continue development of the presenters' support system. The network support system, managed and delivered through a State, university or other non-Federal organization, will enable presenters to actively share experiences and information, ensure presenters are informed of current motor carrier safety issues such as CDL disqualifications or hours of service and allow for measuring the impact and success of the JOP. In FY 1997, the JOP presenter's network support system will be institutionalized and the first presenters' conference will be held. We plan to maintain the current level of funding for the JOP in FY 1997.

Question. Please specify exactly how OMC used funds specified by this Committee for judicial outreach purposes. What was accomplished as a result of these expenditures?

Answer. The $50,000 provided by Congress in FY 1995 was used to develop a marketing strategy and to pilot test the training courses developed for judges, prosecutors and law enforcement officers to provide regulatory and enforcement guidance. The $150,000 provided in FY 1996 is being used to fund an interagency agreement with the National Highway Traffic Safety Administration to revise and test the existing course curricula for judges and prosecutors. The curricula are being revised by the National Judicial College and the National Association of Prosecutor Coordinators and will be pilot tested in July and August 1996. Revision of the existing training curriculum for law enforcement personnel by the International Association of Chiefs of Police also has begun. In FY 1997, the courses for the judiciary and prosecutors are expected to be ready for final distribution, and a draft revision of the law enforcement training module will be pilot tested.

The result of these efforts will be to institutionalize training for judges, prosecutors and law enforcement personnel on enforcing and adjudicating serious and disqualifying driving offenses.

Question. Please complete the following table.

Answer. The information is provided in the following chart.

	FY 1993	FY 1994	FY 1995
Orders for Imminent Hazard Shutdown	15	8	29
Orders for 45 Day Shutdown Rule for Hazmat and Passenger Carriers	17	28	20

Question. Please complete the following table.

Answer. The information is provided in the following chart.

	FY92	FY93	FY94	FY95
a. Number of total enforcement cases	2,016	2,534	2,331	2,222
b. Number of hazmat enforcement cases	306	435	485	413
c. Number of passenger carrier enforcement cases	9	19	41	41
d. Amount of civil penalty assessed (in millions)	$11.3	$14.1	$13.6	$12.9
e. Amount of civil penalty collected for those cases in item d (in millions).	$8.2	$10.4	$9.9	$8.0
f. Estimated number of Federal safety specialists working in the field conducting compliance reviews	286	267	271	254
g. Estimated number of MCSAP officers conducting compliance reviews	20	50	125	225
h. Number of injuries related to commercial vehicle-involved crashes	140,000	136,000	134,000	*
i. Number of deaths related to commercial vehicle-involved	4,462	4,856	5,112	*
j. Any other measure of safety performance	--	--	--	--

* FY 95 data not available.

Question. Please discuss if and when the safety rating process will be replaced by the Safestat process. What specific steps are you planning to take and when?

Answer. The OMC has initiated efforts to replace the safety-rating process with Safestat. However, further testing of the process and the Safestat data is needed. The OMC is planning to initially use Safestat as a replacement for the Selective Compliance and Enforcement system which OMC field staff currently use to select high-risk carriers for compliance reviews. In the winter of 1997, the OMC plans to publish the Safestat algorithm in the Federal Register and take comment on the process and the elements used to determine risk. After we gain some more experience with Safestat by using it in our carrier selection process, we plan to pilot the use of Safestat as a replacement for our rating process.

Question. How much is actually going to be spent on the Office of Motor Carrier's ADP requirements during FY 1996? In your answer please breakout the amounts from the motor carrier account and the ITS-CVO account and indicate each of the projects funded and source of funds. If you did not plan on spending the amount specified in the Senate report for ADP requirements out of the motor carrier account, please explain your decision to disregard the Committee's instructions.

Answer. The amounts to be spent on Office of Motor Carriers ADP requirements in FY 1996, broken out by project and by motor carrier account (GOE) versus ITS/CVO, are as shown below:

PROJECT	GOE FUNDS (millions)	ITS/CVO FUNDS (millions)
MCMIS	$2,900	$850
SAFETYNET	$200	$700
FIELD AND OFFICE SYSTEMS	$400	---
SAFER/200 SITES	---	$3,000
TOTAL	$3,500	$4,550

The amount to be spent out of the motor carrier account, $3,500, is less than the amount $4,800 included in the Senate report because overall GOE resources were severely constrained in FY 1996 and a balancing of program requirements mandated a lesser amount for ADP. Other program elements were reduced much more severely than was ADP.

Question. What has the national enforcement quality team achieved during the last year? What issues has it addressed?

Answer. The national enforcement quality team's goal was to review the current enforcement process of the Office of Motor Carriers, including the level of customer satisfaction, and to make recommendations for improvement regarding:

* the process, (including levels of review, roles of participants, what works, what doesn't, and why);
* the consistency of penalty assessments throughout the nations;
* the pros and cons of non-monetary penalty assessments and when to use them;
* the consistency of penalty collections among regions;
* the level of legal support required and provided; and
* the quality of enforcement actions being initiated.

The team researched the following areas: what is enforcement; who is the subject of enforcement; the enforcement process; the legal role and penalty collection; and enforcement effectiveness (compliance and crash rate). This data were used to report the team's findings and recommendations.

The team's findings and recommendations are in four areas: Enforcement Effectiveness; Legal Role and Penalty Collections; National Uniform Claim Letter; and Safety Specialist Role. The recommendations have been assigned to specific offices for implementation. A National Uniform Claim Letter and other enforcement documents have been developed by the FHWA and were implemented by all Regions on October 1, 1995.

Question. What is your view of contracting out all of the educational and technical assistance activities now conducted by OMC safety specialists and focusing the attention of these trained personnel only on compliance reviews?

Answer. The OMC prides itself in being a safety organization. Education, technical assistance and enforcement must continue to be integral components of our program. There must remain, within the proverbial "tool box" of options, a distinct educational component available for use by the OMC Safety Specialists and

State counterparts. We believe that it would be a disservice to the motor carrier industry, as well as a missed opportunity for motor carriers, if the educational and technical assistance is not provided during the compliance review (CR). A motor carrier is entitled to explanations of any citations it may receive during a review, in addition to some advice on how to improve compliance and reduce accidents. Contracting out all educational and technical assistance would be highly inefficient, and would only subject motor carriers to an unnecessary visit by a contractor.

At the core of the OMC Strategic Plan is a three-part message that specifically addresses the need to create a crash-free environment, to move America into the 21st century, and to use partnerships to enhance our ability to succeed. Within each goal there are specific objectives that will promote the attainability of the goal. Objectives that focus on such things as reducing accident fatality rates and increasing the effectiveness of a CR in lowering accident rates are only part of creating a crash-free environment. These issues can only be properly addressed through educational and technical assistance provided by OMC or State personnel. When discussing what the 21st century brings in the way of technological strategies for achieving compliance, we find that without the OMC working and coordinating directly with the regulated industry, there would be no advancement. The educational and technical guidance provided by the OMC and the States is often the nexus between failure and success. Partnerships with our customers are critical to enhance OMC's ability to improve motor carrier safety and performance.

Question. We understand that you have indicated to your OMC regional directors that they should plan for a substantial reduction in the travel allocation for their field staff during FY 1996. If this is true, isn't this in direct violation of the Committee's direction that none of the reduction in the FY 1996 appropriation shall be taken from funds used to conduct compliance reviews?

Answer. It is true that OMC regional directors have been allocated less travel funds for FY 1996. Based on the FY 1996 appropriation, reductions in nearly every area of the budget were necessary to minimize the impact on major ongoing initiatives and to prevent staffing reductions. However, the reductions taken in travel have been directed in areas such as staff meetings, program manager meetings, Technical Assistance Group travel, field outreach efforts, and other areas which could be delayed or are not considered in direct support of our objectives. Meeting participation has declined in all areas where possible. At this time, we anticipate little, if any, decrease in the conduct of compliance reviews, but the budget reduction has definitely required modifications in how the field and headquarters do business.

Question. How much was spent on travel for compliance reviews during FY 1995? If you do not have exact figures, please estimate. How much is planned for FY 1996 and FY 1997?

Answer. The FHWA estimates that $2,162,000 in travel funds was spent conducting compliance reviews in FY 1995. Based on the budget cap and the current spending rate for FY 1996, we estimate that approximately $1,763,000 will be spent conducting compliance reviews in FY 1996. The FHWA estimates that the spending level for FY 1997 will equal or exceed the FY 1996 level depending on the FY 1997 appropriation.

Question. If you are going to reduce the amount of travel funds allocated to compliance reviews during FY 1996 as compared to FY 1995, please justify why.

Answer. We plan on reducing travel in areas which do not affect the compliance review process. These include reductions in: staff meetings, Regional Director meetings, program manager meetings, Technical Assistance Group travel, field outreach efforts, training, and other areas which could be delayed or are not considered in direct support of our objectives. Reductions in headquarters and field travel (and many other areas) were required to minimize the impact on the information management systems work already in progress, to maintain current staffing levels, and to provide continuity of focus for the MCSAP and Federal programs.

Question. Please break out the use and amount of all funds for the data analysis unit starting with FY 1995 monies, FY 1996, and projected FY 1997.

Answer. The following is a breakdown and estimate of the use and amount of funds for the data analysis unit for FY's 1995 - 1997:

ACTIVITIES	FY 1995	FY 1996	FY 1997 Est.
Develop and Update Analytic Strategic Plan	$192,658	$134,000	$80,000
Implement Analytic Strategic Plan	$531,212	$1,971,383	$3,225,000

Question. What measures of safety performance do you have to show that your program is effective?

Answer. FHWA believes that all government programs should be assessed in terms of their results, i.e., the performance achieved. To do this for the motor carrier program requires development of benchmarks from which change, or results, can be measured.

It should also be of note that one year's worth of information is not sufficient to judge the overall results of a particular activity or of a program. Any change from one year to another may be the result of factors that have nothing to do with the activity or program being judged. The increase in the number of deaths resulting from crashes involving large trucks also may be simply a reflection of the general trend in all fatal crashes.

For the motor carrier program, the measures used to assess results must also attempt to factor out the impacts that changes in car safety and car driver behavior have on the number of fatal crashes that involve large trucks. The number of fatal crashes or injury crashes involving large trucks or crash rates per million miles traveled, thus, may not be the best measures for the effectiveness of compliance with the Federal Motor Carrier Safety Regulations (FMCSRs) or for any specific FHWA motor carrier safety program.

A number of efforts are currently underway to assist FHWA in determining how well the FHWA's key motor carrier safety programs contribute toward the goal of a crash-free environment. One such effort is a project sponsored by the Volpe Center that will provide a means to measure the contributions of various programs to improvements in safety. These efforts depend on several carefully designed activities that include improving our data analysis, developing a benchmark that is an accurate reflection of the condition of the commercial motor vehicles and drivers on the roads, developing a supplemental database resulting from crash investigations, and developing the relationships between our programs and compliance with the FMCSRs to safety.

Question. Please list the amount and purposes of each of your FY 1995 and FY 1996 contracts related to strategic planning, being certain to include contracts with outside consultants and organizations assisting in the efforts? Did these funds come from the R&D account?

Answer. In FY 1995, $30,000 funded the development of a three-theme approach to the OMC Strategic Plan, as well as the development of the framework for the plan itself. These funds did not come from the R&D account. There were no contracts related to strategic planning in FY 1996.

Question. Please estimate the amount of time and money that was spent on total quality management meetings during each of the last two fiscal years. How much money was during FY 1995 and thus far during FY 1996 on contracts or meeting rooms related to this activity?

Answer. In FY 1995, the approximate amount of time and money spent on total quality management meetings were 65 days and $40,000. Thus far in FY 1996, 12 days and $4,000 have been spent. In FY 1995, a $12,000 contract was awarded to conduct a survey for assessing communication needs within OMC. This information represents both regional and national activity for FY 1995 and FY 1996.

Question. Please estimate the amount of time and money that was spent on diversity training or awareness meetings during each of the last two fiscal years. How much money was spent on contracts or meeting rooms related to this activity?

Answer. The Office of Motor Carriers did not conduct any diversity training or awareness meetings in FY94. However, during FY95, $54,960 and 2,480 hours were spent on diversity training for managers and employees. The contract costs for this training were approximately $9,150. We did not incur any cost for meeting rooms.

Question. OMC specialists and program managers are frequently attending training activities. Please prepare a table showing expenditures for all aspects of training other than diversity training for each of the last three years, specifying exactly how these funds were used and which companies received these awards.

Answer. The following table provides the training expenditures for OMC safety specialists and program managers for fiscal years 1993, 1994 and 1995:

Training Expenditures for Highway Safety Management Specialists and Motor Carrier Safety Specialists			
	FY 1993	FY 1994	FY 1995
Research and Special Programs Administration (RSPA) Reimbursable Agreement	$645,077	$698,383	$360,000
Federal Law Enforcement Training Center	$11,600	$34,800	$11,600
Travel to Motor Carrier Safety Training*	$359,845	$302,137	$272,792
Travel to Other FHWA Central Training*	$233,143	$215,265	$88,985
Other Training*	$242,807	$249,915	$221,768
Total Quality Management Training Contract Costs (all employees)	---	$64,500	---
TOTAL	$1,492,472	$1,565,000	$955,145

Research and Special Programs Administration (RSPA) Reimbursable Agreement: This represents the amount provided to RSPA to cover all costs related to training FHWA safety specialists and program managers. The amount for FY 1995 represents two quarters of the fiscal year. The motor carrier safety training function moved from RSPA to FHWA in FY 1995.
Federal Law Enforcement Training Center: This represents tuition to the Federal Law Enforcement Training Center, Glynco, GA for training in Investigative Techniques. Room and board is included in the tuition.
FHWA Central Training: This represents the travel and per diem costs associated with sending FHWA safety specialists and program managers to FHWA central training courses. These courses relate primarily to supervision, management, finance, and organizational

development and are funded and administered by the FHWA's Office of Personnel and Training. The amount in the table does not include tuition or contract costs for this training.

Other Training: This covers other training that has not been included above. These courses include training in motor carrier safety, management, supervision, organizational development, and computers. The majority of this training is provided and/or purchased by individual field offices to meet specific employee/office needs. The amount in the table represents tuition, travel and other costs related to sending students to this training. The amount also includes travel to the Total Quality Management training held in FY 1994.

Total Quality Management Training Contract: In FY 1994, Total Quality Management training was provided for all Motor Carrier employees. A contract was awarded to the 3M Company and start-up costs were incurred in training OMC facilitators to deliver training to all employees. The amount in the table includes $45,000 in materials to train all employees.

* Source: OMC's Training Nominations and Tracking System.

Question. As the OMC becomes a more mature agency, you are beginning to focus increasingly on many of the same types of activities that are conducted by NHTSA. For example, you are conducting more public outreach activities, working on accident countermeasures, and conducting a more sophisticated research program on driver fatigue. What is the extent of coordination and overlap between the two agencies?

Answer. Since both OMC and NHTSA's programs impact the regulated industry differently and in varying degrees, it is essential that we coordinate and share program insights and activities whenever possible. The OMC, working with NHTSA, ensures that its programs and projects complement the work done by NHTSA. For example, the OMC's fatigue research projects were coordinated with NHTSA, and their progress is being monitored by a Human Factors Working Group made up of FHWA (including OMC), NHTSA, and other Federal agencies active in operator/driver alertness. The OMC staff works closely with NHTSA on data and data systems. Wherever possible, the same data sets are used, such as NHTSA's Fatal Accident Reporting System, which the OMC supports and uses. OMC is the funding source for the truck crash data elements of NHTSA's General Estimates System, because these data are much more critical to OMC analysis than to NHTSA's. The OMC also contributes motor carrier-specific materials to NHTSA educational campaigns, such as "Safe and Sober."

Question. Would it be more effective and efficient to have NHTSA conduct all of your public outreach, educational activities, and judicial or legislative efforts and have the OMC focus more on compliance and enforcement activities?

Answer. No, we believe it is more effective to have the OMC carry out all aspects of the motor carrier safety program. We have found a strong, synergistic relationship among education, public outreach, legislation, compliance and enforcement activities which improves each of those activities. To divide these responsibilities between the OMC and NHTSA would hinder the development and implementation of mutually supportive activities, as well as complicate coordination among these activities. The motor carrier industry is a unique element of highway users which has its own specialized safety and operational issues. The industry itself has expressed the strong desire to have a focal point for its dealings with the federal government, and supported the consolidation of the motor carrier responsibilities formerly held by the Interstate Commerce Commission into the OMC.

Question. What is OMC doing regarding pedestrian safety? What is OMC doing regarding seat belt usage? How are these activities coordinated with NHTSA?

Answer. We have looked at pedestrian safety activities and seat belt usage issues and believe that NHTSA currently has effective, active programs dedicated to both of these efforts. Any initiatives by OMC in these areas would be duplicative at this time.

Question. How do you ensure that there is no overlap? How much money is being spent on pedestrian safety and seat belt activities?

Answer. We have looked at pedestrian safety activities and seat belt usage issues and believe that NHTSA currently has effective, active programs dedicated to both of these efforts. Any initiatives by OMC in these areas would be duplicative at this time.

Question. In Conference Report 104-286, the conferees directed the FHWA to issue an advanced notice of proposed rulemaking [ANPRM] dealing with a variety of fatigue-related issues no later than March 1, 1996 to be followed by a notice of proposed rulemaking within one year and a final rule or decision thereafter. Is this possible? How will you meet this timetable?

Answer. The mandated timetable does not allow the FHWA enough time to integrate public comments with forthcoming research data. The FHWA must analyze the significant and substantial public comments expected to be provided in response to the ANPRM. The FHWA believes the public should have sufficient opportunity for comment, including possible hearings or meetings, to discuss specific scientific-based proposed hours-of-service requirements, on the complex issues surrounding the hours-of-service regulations, fatigue, sleep deprivation, loss of alertness, and accident statistics.

The FHWA is awaiting the results of the "Driver Fatigue and Alertness Study." The FHWA expects the final report to be completed by midsummer 1996. This study report is crucial to providing the basis for the development of a new set of hours-of-service rules. The FHWA believes accurate and extensive data on driver fatigue and loss of alertness are necessary prior to taking steps to change the current rules.

The FHWA expects this ANPRM to be published in July 1996. The FHWA is taking a two-phase approach to this rulemaking. The first phase is to make proposals, based upon scientific data, that will change the current, prescriptive hours-of-service rules. The second phase is to make proposals, based upon scientific data, that will establish a performance-based standard that could be used in lieu of prescriptive rules. Research addressing performance-based standards is scheduled for completion in September, 1997. The FHWA expects the entire rulemaking process to be completed by December, 1999.

Question. How have you strengthened your Federal compliance and enforcement program during the last year?

Answer. The Committee recently directed OMC to make improvements in our enforcement program. Specifically, the Committee directed OMC to:

1. "Maximize the safety and compliance benefits derived from the work of OMC safety specialists." "The strategy must include an increase in the number of more effective compliance reviews." and
2. "Issue comprehensive, uniform, and updated guidance for more effective and uniform implementation of our enforcement program."

   The FHWA has addressed the Committee's concerns in these areas. Previously, the FHWA required that a follow-up compliance review, including all areas of a motor carrier's operations, be conducted within 6 months of settlement any time a motor carrier was subject to an FHWA enforcement action.

Consequently, a great deal of our resources were expended reviewing areas of a motor carrier's operations that were found to be satisfactory during the CR that led to the enforcement action. As a preliminary step, the FHWA implemented revised on-site enforcement follow-up procedures. The new enforcement follow-up procedures allow FHWA safety specialists the discretion to conduct streamlined enforcement follow-up CRs. The streamlined CRs encompass only those areas of a motor carrier's operations previously found to be in less than a satisfactory state of compliance. In addition, the FHWA also required that a complete CR be conducted any time a motor carrier was the subject of a non-frivolous complaint. The FHWA implemented streamlined complaint investigation procedures for motor carriers that have been rated within the previous 12 months. Similar to streamlined enforcement follow-up procedures, these investigation procedures also allow FHWA Safety Specialists the discretion to review the complaint area, and those areas of the motor carrier's operations found to be less than satisfactory on the previous review.

Most recently, the FHWA re-evaluated our policy of requiring an on-site follow-up CR after every enforcement action. With the exception of hours-of-service problems, corrective action in terms of complying with the Federal Motor Carrier Safety Regulations can generally be verified through documentation submitted by the motor carrier. Accordingly, the FHWA revised the policy to allow our Regions the discretion to waive an on-site follow-up CR entirely for enforcement actions that do not include hours-of-service violations. To help ensure uniformity, the FHWA placed conditions on use of this discretion in that the motor carriers must have acceptable accident rates and must submit appropriate evidence of corrective action.

These new policies have allowed FHWA greater utilization of our staff resources. We are now able to more effectively target our efforts towards a larger segment of the "high-risk" motor carrier population.

To address the Committee's directive of updated guidance, the FHWA developed uniform enforcement documents to be used by all Regions. Included among these documents are a uniform claim letter, consent agreement, settlement agreement, compliance order, operations out-of-service order, HM/Passenger out-of-service order, and notice of the consequences of receiving an unsatisfactory safety rating. All Regions began using these document, effective October 1, 1995.

The FHWA recognized that proper guidance was necessary for successful implementation of the uniform enforcement documents. Therefore, the FHWA completed detailed operations manuals to ensure successful implementation. The manuals include chapters on: Enforcement Policies and Authorities, Out-of-Service Orders, Enforcement Case Handling, Role of Regional Counsel, Penalties, Notice of Claim, Civil Forfeiture Proceedings, Consent/Compliance Orders, Administrative Hearings, Subpoena and Appearances as Witnesses, Penalty Collections, and Press Releases.

Uniform fine assessment is another critical element to FHWA's enforcement program. The FHWA recently developed and implemented a Uniform Fine Assessment Software package to ensure more consistent penalties across our regions. The software considers eight statutory criteria in determining appropriate penalties for violations of the FMCSRs discovered during CRs. The statutory criteria are: the nature of the violation, the circumstances of the violation, the extent of the violation, the gravity of the violation, the motor carrier's degree of culpability, the motor carrier's history of prior offenses, the motor carrier's ability to pay, and other mitigating factors.

The FHWA is continuing to make improvements in our enforcement program. In the near future, we will modify our safety fitness rating methodology, and make our carrier selection formula and on-site review procedures more performance oriented.

Question. What are you doing to strengthen the process of issuing out-of-service orders ?

Answer. In the Motor Carrier Safety Act of 1984, Congress gave the FHWA the authority to "order an employer to cease all or part of the employer's commercial motor vehicle operations" when, upon investigation, we determine that violations pose an "imminent hazard" to safety. "Imminent hazard" was defined as "any condition of vehicle, employee, or commercial motor vehicle operations which is likely to result in serious injury or death if not discontinued immediately." During the past year, the FHWA has improved the process of issuing out-of-service orders by developing uniform Out-of-Service Order documents for implementation and use by all Regions. More importantly, updated manual guidelines were developed to assist FHWA staff in making "imminent hazard" determinations. These updated guidelines address criteria that should be considered in making "imminent hazard" determinations such as the motor carrier's accident rate, the motor carrier's vehicle and driver out-of-service rate, and the motor carrier's response to prior FHWA enforcement actions.

On April 29, 1996, the FHWA published a notice in the Federal Register designed to increase the efficiency of our administrative review procedures and enhance the motor carrier industry's due process rights in enforcement proceedings. The proposed rules would require hand-delivery of the out-of-service order, reference penalties for non-compliance, and provide for expedited adjudication. Through these actions, the FHWA will continue to strengthen the process of issuing out-of-service orders.

Question. Please submit data showing the Office of Motor Carrier's FTE and FTP reductions during each of the last three fiscal years.

Answer. The information is provided in the following chart.

Full Time Equivalent Work Years Funded by the Motor Carrier Program

	FTE	POSITIONS
1994	648	691
1995	638	691
1996	629	691

Question. Please provide data updating us on the number of FY 1994 compared to FY 1995 enforcement actions that resulted from the first contact with a motor carrier.

Answer. The information is provided in the following chart.

	FY 1994	FY 1995
Carriers Rated for the First Time	8,249	5,178
First Review Resulted in Enforcement	353	477

MCSAP

Question. Why is it of critical importance that funding for the MCSAP be increased in FY 1997?

Answer. The $7,775,000 increase requested for MCSAP will enable the States to make significant progress in meeting their growing commercial vehicle safety needs. The additional funds will provide for 30 percent more traffic enforcement by MCSAP trained officers to target problem drivers in high crash locations which are the cause of most accidents. It will provide direct assistance to the border States for increased border patrols, training, safety equipments, and data collection to monitor and ensure carrier safety performance in the border zone. The small increase in funds will also support deployment of CVIS into new states and other high priority projects such as drug interdiction and the Judicial/Executive Overview Program.

While accident rates have generally declined over the last 10 years, last year more than 5,000 people died in truck-related accidents. The number of trucks on the highways and the number of truck miles traveled are projected to increase. Further, the industry is highly competitive and there is much pressure for on-time and just-in-time delivery. This, coupled with projections for increased passenger car travel and highway congestion, indicates the need to improve, focus, and expand our Federal and State commercial vehicle safety programs. The MCSAP is the only national-State program to address this problem. The level of MCSAP funds determines the amount of direct enforcement and compliance conducted by the States on the nation's highways.

Under MCSAP, all States are conducting uniform inspections and traffic enforcement and sharing safety performance data on motor carriers and drivers with the other States and FHWA. The MCSAP activities and the Federal safety program are integrated; all of the State and Federal safety activities and data sharing are interrelated and dependent on each other. The FHWA and the States are improving the MCSAP by relying on accident causation data and focusing safety activities on high-risk carriers and high-crash locations. The MCSAP has leveraged almost 2 million inspections and 5,000 compliance reviews per year. The States are full partners in the national program. Further, the industry has benefited from MCSAP because all States now enforce the same minimum safety standards nationwide. Before MCSAP, as a truck traveled from State to State, it was held to varying safety requirements and practices. However, the Truck and Bus

Safety Summit last year identified increased quality and uniformity of State safety and enforcement as a top priority, so much remains to be done in this area. The increase requested for MCSAP in FY 1997 is a small investment in our partnership with the States to meet the growing demands for truck safety.

Question. How many roadside inspections were conducted in FY 1995 compared with FY 1994, and what percentage of vehicles and drivers were placed out-of-service for violations? (Provide data broken down into different levels of inspection.)

Answer. Following is a table of the requested information.

		FY 1994	FY 1995
Full Driver/Vehicle Inspections			
(Level I)	**Vehicles OOS**	1,018,583	900,860
	Drivers OOS	34.4%	33.2%
		7.6%	6.2%
Walkaround D/V Inspections		577,480	544,188
(Level II)	**Vehicles OOS**	18.9%	18.7%
	Drivers OOS	8.5%	8.5%
Driver-Only Inspections		302,195	328,457
(Level III)	**Vehicles OOS**	n/a	*2.1%
	Drivers OOS	11.9%	12.9%
Special Inspections		7,051	4,879
(Level IV)	**Vehicles OOS**	23.2%	19.1%
	Drivers OOS	7.1%	5.6%
Terminal Vehicle Inspections		68,923	27,216
(Level V)	**Vehicles OOS**	16.4%	16.7%
	Drivers OOS	n/a	n/a

* Although Level III is a driver only inspection, many of these are initiated during on-road traffic enforcement stops for "probable cause." The probable cause is frequently a vehicle defect which is cited on the inspection report.

Question. How many of the inspections performed in FY 1995, compared with those conducted during FY 1994, were the more comprehensive Level I inspection, and how did the out-of-service rates compare on these for both drivers and vehicles? Please provide similar data for Level II inspections and for Level III inspections.

Answer. Following is a table of the requested information.

		FY 1994	FY 1995
Full Driver/Vehicle Inspections		1,018,583	900,860
(Level I)	Vehicles OOS	34.4%	33.2%
	Drivers OOS	7.6%	6.2%
Walkaround D/V Inspections		577,480	544,188
(Level II)	Vehicles OOS	18.9%	18.7%
	Drivers OOS	8.5%	8.5%
Driver-Only Inspections		302,195	328,457
(Level III)	Vehicles OOS	n/a	*2.1%
	Drivers OOS	11.9%	12.9%

The data indicates that the States reduced both the Level I and II inspections from 1994 to 1995 and increased the number of driver-only inspections. This reflects FHWA's increased emphasis on a performance-based program that is based on data analysis and problem identification, particularly the driver's role in accident causation. There were small changes in out-of-service rates for drivers and vehicles from FY 1994 to FY 1995 but these changes are not statistically significant.

* Although Level III is a driver only inspection, many of these are initiated during on-road traffic enforcement stops for "probable cause." The probable cause is frequently a vehicle defect which is cited on the inspection report.

Question. What FY 1995 or 1994 data do you have to evaluate whether inspections done in conjunction with stops for traffic enforcement result in more driver out-of-service violations, given their unannounced nature compared with those conducted at weigh stations? What does your analysis show?

Answer. The OMC inspection and out-of-service data reported by the States show that CVSA Level I inspections (usually performed at weigh stations or other known locations) resulted in driver out-of-service rates of 7.6 percent and 6.2 percent for FY 1994 and 1995, respectively. CVSA Level III driver-only inspections (often performed at roadside as a result of a traffic stop or other at a non-fixed facility) resulted in driver out-of-service rates of 11.9 percent and 12.9 percent for FY 1994 and FY 1995, respectively. These figures seem to suggest that "spontaneous" inspections are more likely to result in discovering driver out-of-service violations than are "anticipated" inspections.

However, a 1994 study by the Upper Great Plains Transportation Institute of 8,593 commercial motor vehicle inspections, where the location and type of location were known, revealed virtually no difference in driver out-of-service rates between Level I and traffic enforcement inspections. Since the element of "spontaneity" may be difficult to control when conducting traffic enforcement in marked patrol cars, it remains unclear what relationship, if any, exists between traffic enforcement and higher driver out-of-service rates.

Question. Why is it of critical importance that the uniformity working group receive $450,000 during FY 1997? Why couldn't this group operate at last year's level?

Answer. It is critical that the uniformity working group receive $450,000 during FY 1997 to provide the oversight necessary to ensure that all States (especially new members) receive the resources necessary to comply with the September 30, 1996 deadline required under Section 4008 of the ISTEA. The FY 1997 funds proposed for the uniformity working group have not increased above the FY 1996 level. The working group received $450,000 in FY 1996 as well.

Question. Why are you requesting an increase in the administrative takedown for MCSAP? How would these additional funds be used?

Answer. As provided in the ISTEA, the budget requests 1.25 percent of the $85 million for MCSAP to support State training and grant administration. The level of funding for this program has remained approximately the same since 1993. The participants in the first Truck and Bus Safety Summit found that the lack of uniform safety and enforcement procedures causes the perception of inequitable treatment of motor carriers from State to State and a poor attitude toward safety by the industry. The FHWA believes that providing classroom training on inspection and compliance procedures and techniques, as well as innovative training and quality initiatives such as distance based learning techniques, is a central strategy to address this concern.

These funds are used to support the development and delivery of training to the States to ensure quality and uniform enforcement and safety practices nationwide. In FY 1996, the FHWA has used more than 99 percent of the administrative takedown funds for developing and delivering training, newsletters, and uniformity initiatives for State employees. A small portion of the funds is used for optical scanning and computerization of national grant records and processes. In FY 1996, these funds are providing approximately 136 courses to 2,900 State staff through the Office of Motor Carriers' National Training Center. In FY 1997, with increased funding, we will meet the States' needs for more than 167 courses for 4,175 State employees. In FY 1997, the States have significant increases in needs for training to ensure uniform inspections, training in new inspection techniques involved with advanced technologies, training on motor coach inspection techniques, and training for data collection and communications technologies.

Question. What was done since last year to increase the number of MCSAP States that are actively enforcing the hazmat registration requirement?

Answer. This summer, 12 States will participate in the first National Fleet Survey to determine, among other things, current compliance with the hazmat registration requirements. Although a previous National Road Check had revealed that 97 percent of carriers subject to the regulations were in compliance, State and Federal inspectors continue to enforce this requirement during compliance reviews.

Question. I am concerned about the substantial costs associated with some of the expenses related to the MCSAP, especially the Challenge contest and trips to expensive resorts and cities to attend Spring and Annual CVSA meetings. For example, during the last few years, monies from the Federal Highway Trust Fund have paid MCSAP officers and OMC officials to travel to various CVSA meetings at Prince Edward Island, Toronto, Vancouver, and Sun Valley. How much was the average expense for the Federal employees that attended the Sun Valley conference? The Prince Edward Island conference? What was the range of expenses for MCSAP officers? Do we need to impose a limitation to reduce the amount spent on such events?

Answer. The average expense for Federal employees to attend the CVSA conferences at Sun Valley and Prince Edward Island was $1,300 and $2,000, respectively. Expenses for the MCSAP officers in attendance are approximately the same. Although OMC does not determine where CVSA conducts its conferences, the OMC limits the number of Federal personnel who participate. Also, in an effort to control State travel expenses incurred under MCSAP, the OMC is developing strategies to limit per diem reimbursement and expenses associated with conferences, workshops, registration fees and membership dues. As a result of our efforts, we do not believe that Congress should impose a limitation to reduce the amount spent on such events.

Question. What other high cost projects (like the Challenge contest, approximately $300,000) are you funding out of your administrative takedown of MCSAP funds?

Answer. In FY 1996, the State of South Carolina was awarded a grant to run Challenge '96. No administrative takedown funds were used for the competition this year. The largest expenditure from administrative takedown funds in FY 1996 was to the OMC National Training Center. These funds pay the travel and per diem for State commercial motor vehicle safety experts to serve as associate staff to develop and deliver training courses nationwide. In FY 1996, 136 courses are scheduled for 2,900 State employees. In FY 1997, 167 courses are planned for 4,175 State employees. The other funds are used to support a variety of smaller training and quality improvement efforts, such as the National Fleet Survey. Less than 1 percent of the funds was used for administration of the MCSAP to purchase equipment and services to computerize MCSAP records.

Question. Please prepare a detailed breakdown on a project by project basis of the use of MCSAP administrative takedown funds for FY 1995 and thus far during FY 1996.

Answer. The information follows:

FY 1995:	
National Training Center (develop & deliver State Training)	$570,000
Challenge 1995 (partial funding)	$243,000
Roadcheck Activities & Report	$12,000
	========
Total	$825,000
FY 1996:	
National Training Center (develop & deliver State training)	$668,400
National Fleet Safety Survey administration	$7,500
Guardian Newsletter (partial funding)	$25,558
Uniformity & reciprocity of compliance procedures	$34,500

Optical scanning & archiving of grant records	$2,000
State training & administration**	$87,042
	========
Total	$825,000

**The remaining funds for FY 1996 are planned for additional projects to support the continuing development of quality, uniformity, and innovation in the States' programs such as the development of safety compliance materials and courses, compliance and enforcement procedures, program evaluation techniques, and the development of performance measures.

Question. OMC analysis shows that a substantial percentage of multiple vehicle fatal truck crashes are intersection-related. In view of this evidence, what guidance is OMC providing to the States to target more of the traffic enforcement efforts of MCSAP at intersections?

Answer. OMC analysis of the last 4 years of available data (1991 to 1994) shows that in multi-vehicle fatal crashes that also involve trucks, about one-third occur at intersections. Most often it is the car driver's behavior that is indicated as a factor in these crashes--the car driver's behavior is indicated twice as often as the truck driver's behavior. This problem was also identified in OMC 1996 Strategic Plan. Therefore, any enforcement program would need to focus on the car driver to make a large impact on these types of crashes.

OMC has several activities underway to address this concern. First, through the MCSAP grant process, States are encouraged to identify high-crash corridors, problem drivers and driver errors and focus their traffic enforcement operations in these areas. Following crash data analysis, each State is encouraged to implement traffic enforcement strategies which would best help reduce crashes. These strategies may include enhanced speed enforcement, emphasis on tailgating violations, and increased attention to intersection-related violations. Also, OMC is providing additional traffic enforcement funding to the 10 States that have almost 50 percent of the total fatalities in truck-involved crashes to design strategies that address the problems identified in these States. Finally, programs such as "Share the Road" and the Law Enforcement and Truckers for Safety address the issues related to sharing the road with trucks and the problems related to car driver lack of understanding of the differences between how cars and trucks operate.

Question. How many States are identifying the motor carrier whose driver received a traffic citation by placing the ICC or DOT number on the ticket? For those States that are conducting this activity, what is the extent of their participation in this process? Is it just the State Police?

Answer. There are currently 12 States that place the motor carrier's ICC or USDOT number on the ticket received by the driver of a commercial motor vehicle. Of these 12 States, Indiana, Idaho, and North Dakota are presently participating in Phase II of the Driver/Carrier Relationship project and plan to continue to collect and use the citation data when the project is complete. Michigan and California are also participating in the project but identify the motor carrier by either carrier name (Michigan) or State motor carrier identification number, which is crossmatched with the ICC and USDOT number (California).

For fiscal year 1995, Congress mandated that not less than $300,000 be used to encourage State agencies that are not now entering the USDOT number on traffic tickets to do so. Seven States--Illinois, Ohio, Wisconsin, Montana, Utah, Wyoming and New York--have been awarded funds to accomplish this task. These States vary in what they have accomplished thus far. For example, some of the States are using the funds to redesign and print their respective citations while others are using the funds to develop software and hardware to upload and analyze the citation data. In addition, some States have recognized the need to train their enforcement officers to correctly identify the motor carrier and properly record it on the citation and have included this activity in their proposals. The projected completion date for these activities is September 30, 1996.

The CVIS project members have also expressed an interest in collecting citation data. Of the States participating in the CVIS project, Iowa and Indiana identify the motor carrier on the citation by means of the USDOT or ICC number. There is some resistance by the other State members to collect citation data due to the complex issues surrounding the process, e.g., training, design and printing costs, and lack of jurisdiction over local agencies.

While several States collect State Police citation data, New York and Iowa control all citation data from all agencies within their respective jurisdictions (not just State Police citation data). Both of these States accomplish tracking citations through individual sophisticated computer systems.

Question. Last year you stated that FHWA is evaluating whether it is effective to collect such information. Since then, what additional analysis did you conduct on this issue? What did you decide to do? When will you take action on your decision and what will it cost? What is the status of your efforts to encourage the States to adopt this procedure?

Answer. Phase I of the Driver/Carrier Relationship project determined that there is a relationship between the violations that a driver receives and the carrier who the driver is employed by. The project also found that violation rates differ substantially among carriers. Phase II of the project was undertaken to validate the Phase I results, determine if the difference in carrier violation history is associated with a difference in safety performance, and to identify appropriate measures for use in identifying potential problem carriers. Although the project is still ongoing, preliminary results have validated Phase I results and established a clear relationship between carrier violation rates and carrier safety performance, as measured by crash rates. In addition, Phase II will develop measures for identifying and ranking potential problem carriers.

There are a number of initiatives being explored regarding citation data collection such as the CVIS project and the SAFETYNET 2000 project that are investigating the addition of a citation module. However, what data should be collected, (e.g., hazardous moving violations, size and weight violations) and the cost still rank high on the list of concerns by the States that are familiar with the issue. FHWA will not decide on collecting such information until the completion of Phase II and a cost analysis.

In FY 1995, Congress mandated that not less than $300,000 should be used to encourage State agencies that are not now entering the USDOT number on traffic tickets to do so. In response to efforts to encourage States to adopt this procedure, seven States have activities underway. Some States are using the funds to redesign and print their citations with a place for the DOT number while others are using the funds for related computer software and hardware. Others are focusing on training their enforcement officers to correctly identify the motor carrier and properly record it on the citation. The projected completion date for these activities is September 30, 1996.

In addition, the CVIS project has created interest in collecting citation data in States other than those currently involved in Phase II of the Driver/Carrier Relationship project. Connecticut, on its own, added the USDOT number to its citations. OMC will continue its evaluation of the current projects to determine the next steps.

Question. In Conference Report 104-286, the basic grant program provided $1,500,000 for covert operations. Of the $1,500,000, $400,000 is used to develop a model out-of-service prototype system that states can use to assure the commercial vehicle drivers comply with those orders. What is the status of this project and what do you hope to accomplish with these funds?

Answer. We are planning a model out-of-service (OOS) project that is based on early use of the SAFER/Driver-Vehicle system by the Eastern State Consortium group. We are in discussions with these seven States (DE, VA, WV, MD, PA, NJ, and NY) to develop a project involving many or all of them in using a prototype retrieval of OOS inspections. If successfully developed, this project will demonstrate the effectiveness of using an inspection database into which multiple States would rapidly input OOS inspections and from which State enforcement staff, even in other States, could retrieve inspections and verify that the OOS condition has been resolved.

Question. In Conference Report 104-286, $200,000 was provided to conduct a model accident investigation and reconstruction program. What is the design for this program? How will this project be conducted? By whom?

Answer. In fiscal year 1995, the Office of Motor Carriers awarded a $100,000 grant to the Minnesota State Patrol to determine the minimum uniform data elements that should be captured from commercial vehicle crashes and develop a model commercial motor vehicle accident investigation curriculum. As part of the project, the Minnesota State Patrol created a Curriculum Advisory Committee made up of States that have experience in post-crash investigations for guidance on how to develop an appropriate training curriculum. Based on the recommendations offered by the Curriculum Advisory Committee, Minnesota has developed a draft course curriculum which will be field tested at Camp Ripley, Minnesota on June 24-28, 1996.

We will be working with Minnesota and its Curriculum Advisory Committee over the next several months to review the results of the draft course and develop the implementation plans to offer the course nationwide using the balance of the $200,000 earmark.

Question. Please update the useful discussion presented last year on the progress the States have made in using MCSAP dollars to further each of the following areas: size and weight enforcement, drug interdiction, hazardous materials (Hazmat) training, truck and bus accident data, commercial drivers license (CDL) enforcement, research and development, and public education.

Answer. In FY 1996, $6.1 million was earmarked for these activities (except for size and weight enforcement). Through supplemental incentive grants and designating high priority areas for reallocation funding, we are encouraging States to develop comprehensive programs with additional funding authorized by ISTEA. A comprehensive program is one in which a State has and enforces compatible regulations which pertain to both interstate and intrastate transportation and has a motor carrier safety program which includes roadside driver and vehicle inspections, compliance reviews, traffic enforcement, hazardous materials training, drug and alcohol enforcement, and a fully-implemented SAFETYNET program. We believe that when the States participate in a broad range of commercial vehicle safety programs focused on the highway safety problem in their State, highway safety is enhanced. Each year since FY 1992, funds have been allocated to the States for these earmarked activities. Over 1.8 million inspections were conducted in FY 1995, which included CDL checks and enforcement for drivers. Many States also conduct size and weight enforcement in conjunction with safety inspections but no additional funds are designated for this activity. This activity is funded from the States' basic grants.

We continued to see increases in hazardous materials compliance reviews conducted by the States. In FY 1995, 952 hazardous materials compliance reviews were conducted, as compared with 504 conducted in FY 1994. Additionally, 144,362 vehicle inspections, or nearly 8 percent of all inspections conducted in fiscal year 1995, were hazardous materials related.

As of June 10, 1996, 460 significant drug seizures from in-transit commercial motor vehicles have been documented, totaling over 300,000 pounds of marijuana, over 100,000 pounds of cocaine, and $12 million in currency seizures. The Drug Interdiction Assistance Program was responsible for training of over 25,000 Federal, State and local officers in 48 States and Canada, relative to commercial motor vehicle drug trafficking trends and patterns.

All States have made substantial progress toward full adoption of the National Governor's Association (NGA) data elements. Currently 34 States are uploading all 22 of the NGA accident data. All other States are uploading some of the NGA data elements through the SAFETYNET accident module.

Twelve research and development projects funded in FY 1996 to improve the roadside inspection program by enhancing its efficiency and by reducing the time needed to conduct an inspection. The projects will also help the overall MCSAP be more responsive to both the national and State safety needs through increased use of technologies, data to evaluate program effectiveness, and best practices from other States. The State of Maryland continues to successfully manage the national public education outreach program, "Share the Road." MCSAP lead agencies in New York, Colorado, Texas, Nebraska, and North Carolina received special grants to further implement the national "Share the Road" program developed by Maryland. The funds will be used to distribute No-Zone campaign television and radio public service announcements, print brochures, posters, and other related materials, and hold educational No-Zone public demonstrations at truck stops, rest areas, and weigh stations. Minnesota administered the "Name the No-Zone Character" contest which generated much media attention and 6,000 high school student entries. Additionally, Colorado, Nebraska, New York, Georgia, and Ohio are also championing the No-Zone truck decal program, whereby carriers place graphic No-Zone campaign messages on truck trailers that bring these safety messages directly to the people on the highways.

Question. We understand that FHWA has achieved some positive results from the research initiative originally sponsored by this committee on advanced brake measurement technology for MCSAP inspectors. Please summarize the results of this research.

Answer. Data from a 1-year field test of prototype performance-based brake testing technologies have been collected and analyzed by Battelle Memorial Institute. The December 1995 interim report entitled "Evaluation of Performance-based Brake Testing Technologies" included analyses of two roller dynamometers and one flat-plate brake tester. Correlation of the results between joint inspections consisting of the brake and tire portion of a CVSA Level 1 inspection and a test performed on the prototype brake tester, are presented. Correlations between out-of-stroke violations and defective brakes identified by the roller dynamometers were between 70 and 75 percent overall, and better than 90 percent when air pressures in excess of 70 PSI were achieved during the test. The correlations for the flat-plate tester which uses different failure criteria, were between 60 and 65 percent, and improved to up to 85 percent for heavily loaded axles. Additional data was presented on machine use characteristics. Based on the preliminary evaluations, the Office of Motor Carriers issued a MCSAP policy memorandum making the Nepean Mark III roller dynamometer, and the Hunter B400T Flat-Plate Tester eligible under the MCSAP program for screening and sorting commercial motor vehicles for full inspections.

Question. What are the next steps in promoting the deployment of this technology? How will you be able to prove the value of these technologies as a better means of enforcement of brake safety regulations?

Answer. The Office of Motor Carriers will issue and distribute a final report and additional eligibility guidelines during FY 1997. Additionally, a parallel effort is envisioned that will develop manufacturing and test specifications for performance-based brake testing devices and publishing a "conforming products list," identifying currently eligible machines. Also, we will continue to work towards the development of performance standards that would allow vehicles to be placed out-of-service by these new technologies. Our research has shown that performance-based brake testing technologies are capable of identifying brake defects and deficiencies that are not visible to an inspecting officer. We believe that our continued research to develop performance-based test equipment and standards will lead to more effective brake inspections that tests the actual performance of a braking system rather than measuring individual component parts.

Question. What are your plans to accelerate the use of these technologies in MCSAP?

Answer. At the present time, we are encouraging MCSAP States to read the December 1995 interim report and eligibility guidelines to determine whether or not the currently eligible machines meet their needs. We will continue to provide information on additional technologies as it becomes available. Additionally, a discussion of eligible technologies was included in the FY 1997 MCSAP Planning Memorandum.

Question. How many States and how many inspection units or officers will be using advanced brake measurement technologies during FY 1996?

Answer. To date, 7 States and a total of 21 MCSAP officers have utilized advanced brake measurement technologies during FY 1996. In addition, the States of Wisconsin and New Mexico are scheduled to begin using advanced brake testing technologies later this summer.

Question. Can Federal aid funds be used to pay for States incorporating advanced brake testing equipment at MCSAP sites? If not, why?

Answer. Yes. Since many of the technologies are capable of weighing vehicles, incremental costs associated with the purchase of brake testing technology are eligible. For example, if a standard scale cost $10,000, then the same amount would be eligible when purchasing an innovative brake testing device, so long as the device was also used for weight enforcement/screening.

Question. For each of the States receiving MCSAP funds please provide information contained in SAFETYNET that shows FY 1995 data on the:

--number of vehicles or drivers observed during any covert verification operations,

--number of vehicle or drivers rechecked for out-of-service violations as part of any covert operation,

--number of drivers or vehicles found as a result of any covert operation to be in violation of an out-of-service order,

--type of initial inspection site (fixed or temporary) covertly observed,

--verification methodology (unmarked or marked vehicle), and

--other major findings relevant to this concern.

Answer. SAFETYNET provides the data requested, except it does not track the methodologies used and the type of facility at which the covert operations are conducted. We are aware that these operations are conducted at fixed and mobile sites, depending on the circumstances, and the States use a variety of methodologies such as marked and unmarked vehicles, including a commercial motor vehicle, to covertly observe drivers and vehicles. The major findings are that States expended a total of 15,173 hours conducting covert activities in their basic program. An average of 30 staff-hours was expended to detect each driver/vehicle still in noncompliance with the out-of-service order. The data indicate that 96.2 percent of the drivers/vehicles were repaired prior to leaving the inspection site or remained unmoved at the site and in compliance. The data provided from SAFETYNET is listed in the chart below:

COVERT ACTIVITIES

STATE	#VEH/DRV FIRST OBSERVED	#VEH/DRV RECHECKED AFTER LEAVING	#VEH/DRV RECHECKED STILL IN VIOLATION	# / % VEH/DRV REMAINING OOS OR IN COMPLIANCE
REGION 1				
CT	159	37	17	142 / 89.3%
MA	118	26	11	107 / 90.7%
ME	360	43	0	360 / 100%
NH	35	9	4	31 / 88.6%
NJ	187	102	2	185 / 98.9%
NY	601	161	56	545 / 90.7%
RI	101	36	3	98 / 97.0%
VT	106	16	8	98 / 92.5%
REGION 3				
DC	25	20	0	25 / 100%
DE	24	4	0	24 / 100%
MD	165	8	8	157 / 95.2%
PA	100	1	0	100 / 100%
VA	1970	627	20	1950 / 99.0%
WV	40	11	0	40 / 100%
REGION 4				
AL	83	3	0	83 / 100%
FL	51	18	0	51 / 100%
GA	236	92	18	218 / 92.4%
KY	207	155	2	205 / 99.0%
MS	102	10	9	93 / 91.2%
NC	25	1	1	24 / 96.0%
SC	524	286	0	524 / 100%
TN	37	8	1	36 / 97.3%
REGION 5				
IL	167	25	1	166 / 99.4%
IN	218	218	9	209 / 95.9%
MI	312	77	6	306 / 98.1%
MN	28	7	2	26 / 92.9%
OH	485	92	25	460 / 94.8%
WI	110	28	17	93 / 84.5%
REGION 6				
AR	181	9	3	178 / 98.3%

COVERT ACTIVITIES

STATE	#VEH/DRV FIRST OBSERVED	#VEH/DRV RECHECKED AFTER LEAVING	#VEH/DRV RECHECKED STILL IN VIOLATION	# / % VEH/DRV REMAINING OOS OR IN COMPLIANCE
LA	377	88	16	361 / 95.8%
NM	63	32	4	59 / 93.7%
OK	193	25	5	188 / 97.4%
TX	245	18	11	234 / 95.5%
REGION 7				
IA	209	81	19	190 / 90.9%
KS	997	123	16	981 / 98.4%
MO	341	125	66	275 / 80.6%
NE	101	12	3	98 / 97.0%
REGION 8				
CO	688	43	3	685 / 99.6%
MT	60	19	1	59 / 98.3%
ND	39	26	4	35 / 89.7%
UT	337	337	17	320 / 95.0%
WY	227	1	1	226 / 99.6%
REGION 9				
AZ	1552	700	0	1552 / 100%
CA	226	226	91	135 / 59.7%
HI	9	3	0	9 / 100%
NV	111	21	2	109 / 98.2%
REGION 10				
AK	4	0	0	4 / 100%
ID	71	4	4	67 / 94.4%
OR	38	9	3	35 / 92.1%
WA	240	32	6	234 / 97.5%
TOTAL	12885	4055	495	12390 / 96.2%

Question. What concrete evidence can you present to document that if a State finds that it has a problem with drivers violating out-of-service orders, that it spends more money addressing this problem? That it addresses this problem with additional covert verification activities?

Answer. In the FY 1997 planning letter to the States, FHWA reiterated that under 49CFR Part 350, they are still required to conduct out-of-service (OOS) verification and covert activities and report those activities in the quarterly report. We are also providing the States the results of the national OOS compliance special project so they can make any necessary modification to their existing OOS verification programs based on the results.

Through each Division's regular program monitoring of the States' MCSAP activities, the safety, enforcement, and compliance data for each State are reviewed. If a State has a problem with compliance with OOS orders, we provide technical assistance and resources to help the States address this problem. The detailed information on individual State monitoring is maintained at the Division offices. Only the data on the results of the States' activities are reported through the quarterly reports. The first national Peer Review conducted in FY 1995 identified 47 practices that the States found most effective. In a follow-up survey of the States' implementation of these recommended practices, we found States use, on average, 19 enforcement and compliance practices to ensure OOS verification. Further, they report planning to use, on average, 11 new strategies. The University of South Carolina participated in the peer review and continues to offer direct, individual assistance to any State that requests it.

In addition, 14 States will begin pilot testing the new State Motor Carrier Safety Plan (SMCSP) in FY 1997 to develop a model for performance-based and results-oriented safety plans of the future. As well, we have challenged all of the States to begin to integrate program performance measures into all aspects of their motor carrier safety initiatives. FHWA does not measure the effectiveness of a State's OOS verification program based on the amount of money a State spends. We rely on safety compliance data to assess the performance and results of their program.

Question. We now have three or four years of data on States conducting covert operations assessing the extent to which commercial drivers violate out-of-service orders. Please provide in tabular form the detailed data that the States submitted on covert operations conducted during FY 1995 and compare these results with data previously submitted being certain to show totals for various inspection results for each year.

Answer. Listed below are summary amounts of the covert activities conducted by the States since FY 1993.

	FY 1993	FY 1994	FY 1995
Vehicles/Drivers First Observed	13,969	8,516	12,885
Vehicles/Drivers Rechecked After Leaving	6,225	1,808	4,055
Vehicles/Drivers Rechecked Still in Violation	378	379	495
Vehicles/Drivers in Compliance (remaining OOS or rechecked & repaired)	13,591 (97.3%)	8,137 (95.5%)	12,390 (96.2%)
Number of Hours Spent on Covert Activities	11,618	8,578	15,173
Hours spent per violation	30.7	22.6	30.7

These data reflect enforcement activity and are not representative samples that indicates overall industry compliance with out-of-service (OOS) orders. The States may focus covert verification activities at locations where they have a particular problem with carriers violating these orders. Last summer, the States conducted an OOS verification project to collect more accurate compliance rates. This project found, overall, that 90.4 percent of drivers and 93.6 percent of vehicles complied with OOS orders.

Question. Please discuss in detail the results of this past summer's covert operation projects. What insights were gained? How does this data compare to the quarterly data on covert operations which the States already submit?

Answer. In the fall of FY 1995, with funds designated by Congress to be used for covert activities in addition to the covert activities the States had already planned as part of their basic program, the FHWA provided grants to the States to conduct a special covert data collection project. The purpose of the project was to generate a national and State-by-State out-of-service (OOS) compliance baseline.

The States that participated in the study followed uniform procedures developed by the Office of Motor Carriers. Each agency selected times and locations representative of the usual operations of the State. The 3-month project was conducted from August 1, 1995, through October 31, 1995, and the duration of each operation was a maximum of 8 hours. The first 5 hours of the operation were used to conduct vehicle/driver inspections. Upon completion of the 5-hour inspection period, the inspection site was closed and the 3-hour covert surveillance of remaining out-of-service vehicles and drivers began.

In this study, data was collected from thirty-seven States on 13,995 inspections. Of these, 5,925 (42.3 percent) were issued OOS orders. During the five-hour inspection period, 3,176 of the orders were resolved, leaving 2,749 vehicles/drivers to be covertly observed for 3 hours (distributed as follows: vehicles with OOS equipment violations 1,610; vehicles with only OOS driver violations 875; and vehicles with both violation types 264). This gives 1,874 OOS vehicle inspections used for estimating the violation rate for OOS vehicles, and 1,139 OOS driver inspections for estimating driver OOS violation rates.

The data from these inspections has been analyzed to provide a baseline which all the States may use to measure the covert portion of their OOS verification activities. This study shows that over half (53.6 percent) of the driver and vehicle OOS violations were corrected and verified before leaving the inspection site prior to the beginning of the covert operation.

The number of out-of-service drivers covertly observed was 1,139. Of those drivers covertly observed, 157 (13.8 percent) drivers left the site, were reinspected and found to be in compliance; 873 (76.6 percent) remained in compliance at the inspection site at the end of the 3-hour observation period for a total of 90.4 percent of the observed OOS drivers complied with the order. The number of drivers that left the site was reinspected and found to be in violation of the OOS order was 109 (9.6 percent).

The number of out-of-service vehicles covertly observed was 1,874. Of those vehicles covertly observed, 868 (46.3 percent) vehicles left the site, were reinspected and found to be in compliance; 887 (47.3 percent) remained in compliance at the inspection site at the end of the 3-hour observation period for a total of 1,755 (93.6 percent) of the observed OOS vehicles complied with the order. The number of vehicles that left the site was reinspected and found to be in violation of the OOS order was 119 (6.4 percent).

The Office of Motor Carriers maintains that the point of placing vehicles/drivers out of service is to remove them from the highways until repairs are effected. Therefore, when calculating compliance rates, we should consider not only those vehicles reinspected and found in compliance, but also those vehicles/drivers remaining unmoved and in compliance. Thus, we can conclude that the remaining vehicles/drivers are still in compliance with the out-of-service order and are included in the population of vehicles/drivers complying with the OOS order.

The findings in the special project and the quarterly report on covert activities provide strong support for the development of more cost-effective programs to ensure compliance with OOS orders and also for promoting the development and use of ITS/CVO technologies to increase program efficiency. For this type of enforcement problem where covert verification is labor intensive, FHWA believes that technology is especially well suited to meet the challenges most efficiently. The data demonstrates that covert verification is an effective means to establish a benchmark for compliance and is only one element of a broad range of effective OOS verification programs.

The results obtained from last summer's covert project are very similar to information derived from the MCSAP quarterly reports. The number of out-of-service vehicles covertly observed was 12,885. Of those vehicles/drivers covertly observed, 3,560 (27.6 percent) vehicles/drivers left the site, were reinspected and found to be in compliance; 8,830 (68.5 percent) remained in compliance at the inspection site at the end of the observation periods. Therefore a total of 12,390 (96.2 percent) of the observed OOS vehicles complied with the order. The number of vehicles that left the site, were reinspected, and found to be in violation of the OOS order was 495 (3.8 percent).

Question. Is there a need to continue on a smaller scale the process implemented in the special project during FY 1995?

Answer. Covert operations are labor intensive and the findings provided by last summer's special project and the covert operations in the States' basic programs provide strong support for the development of more cost-effective programs to ensure compliance with out-of-service orders. The national peer review on out-of-service verification identified a large number of activities that have proven effective in addressing these problems.

This project provided baseline data for the States. The States will be able to use the baseline compliance information from the special project to measure the future results of the verification initiatives contained in their basic program. Rather than fund another special project of this type, we believe that it is sufficient for covert verification to remain an integral part of each State's basic MCSAP activities, rather than a separately funded activity.

The MCSAP grant regulations (49CFR 350) require that each State conduct verification programs (including covert) and this information is reported quarterly to FHWA by the States.

We will continue to work with the States that have identified problems in this area to increase compliance with out-of-service orders by the commercial motor carrier industry.

Question. Could these results have been biased by the lengthy interview process conducted by the officers participating in this project? Could the additional questions posed have tipped the drivers off that something unusual was occurring?

Answer. No. There was nothing in the format or conduct of this interview that would indicate that anything more than an ordinary survey or roadside inspection was being conducted. As part of their investigative techniques, inspectors routinely ask many questions of a driver, for instance, to substantiate logbook entries, routes, etc. Even if additional questioning by an inspector arouses the suspicion of the driver, the nature of the project will remain unknown to the driver.

Question. Many MCSAP States are using the FHWA developed, hand-help computer system that helps inspectors record safety data. Could you explain the various functions now performed by this system? How is this information system improving the effectiveness and efficiency of the MCSAP?

Answer. The ASPEN system is designed to assist State enforcement officers in completing vehicle inspections and moving the resulting reports quickly into the National information system. The Inspection Selection System (ISS) is a feedback mechanism which helps target problem companies while avoiding repetitive inspections on companies with good safety performance records. It helps make the "inspect" or "don't-inspect" decision and provides tips on possible problems based on past history. The CDLIS access component of ASPEN allows quick and easy identification of drivers with suspended, revoked, or bogus commercial driver licenses.

As a data collection aid, ASPEN speeds the input of carrier, vehicle, driver, and cargo data while ensuring its accuracy. All edit checking is done at the roadside which eliminates most all processing and clerical data input back at the office. Using USDOT numbers to lookup carrier name and addresses ensures positive identification of carriers so inspections can be credited to the correct company. This is critical for safety performance ratings, carrier profiles and other systems which rely on accurate data.

Inspection data from ASPEN are transferred rapidly into State information systems (SAFETYNET) and from there into the National Motor Carrier Information System (MCMIS). Data timeliness in MCMIS is moving from 90 days to weekly and even daily. With future wireless technology, our goal of near real-time information systems can be reached.

Question. How many States are not submitting data on inspections and crashes involving commercial motor vehicles to the FHWA in a timely manner, e.g., within three months after the date of an inspection or six months after the date of a crash? What data can you provide on the scope and extent of this problem? What is the FHWA doing about each of these challenges?

Answer. Five States (NY, TN, TX, VA, and WY) are uploading inspection data, on the average, more than 90 days after the date of inspection. These range from 94 days in Virginia to 152 in Texas. Nine States (AR, ID, KS, MD, ME, NJ, NY, OK, and WV) are uploading crash data, on the average, more than 180 days after the date of a crash. These range from 190 days in Kansas to over a year in Idaho, Maine, New York and West Virginia.

FHWA continually monitors the timeliness of submissions and provides technical support to those States having technical problems. We also send out a periodic management report to the OMC field staff that reports on each State's timeliness status. This report is being modified for electronic transmission directly to MCSAP State offices as well as the appropriate Federal field office.

With the crash data, in addition to providing technical support, the OMC Division offices are working with the States on other issues, such as those internal to the State (e.g., change over to a new computer system within the State or arrangements with another agency).

During FY 95, each Division conducted a Quality Process Review (QPR) on their States' MCSAP program, including modules for SAFETYNET, Carrier Census, and NGA Data Process. The purpose of this QPR was to improve the knowledge of the Federal MCSAP specialists with the day-to-day operation of SAFETYNET at the State level, to improve Federal/State communications, and to provide a method for the Federal MCSAP personnel to record on-site observations of the States' various MCSAP activities. Although analysis of the QPR has not been completed, early indications are that a lot of information gathered will be useful and, along with our ongoing monitoring, we will be able to identify States that are experiencing specific problems so we can address those. In addition, we anticipate being able to identify problems which may exist on a larger scale and to address them nationally.

Question. How many States have modified their accident reporting forms to include the National Governors' Association (NGA) accident data elements? How many States consistently upload all 22 of the NGA accident data elements?

Answer. When the original recommendation to adopt their data elements went to the States from the NGA, the NGA did not recommend that States modify their existing forms or adopt a supplemental form specifically for truck and bus crashes. The NGA did not want to specify how States should go about collecting the data. Some States could report all the required data from their existing forms. If changes were required, some States might choose to modify their existing forms to collect the additional truck and bus data. Other States might choose to adopt a separate supplemental accident form that officers would only have to fill out for truck and bus accidents.

The FHWA has followed this same philosophy. We do not collect and review State accident reports. We monitor on a monthly basis how many accidents are reported by each State. We also periodically review reports that show how many of the accident data elements each State is reporting. Furthermore, the University of Michigan Transportation Research Institute annually reports on the accident data in the "Truck and Bus Accident Factbook" which it produces under a contract with the FHWA.

A total of 34 States consistently upload all 22 of the NGA accident data elements. For 1995, the following States are not uploading all data elements, or are uploading so few accidents they are not counted as being "consistent" in their uploads.

Alaska - uploaded only six accidents;
California - not uploading vehicle identification number, license plate number, license plate State, or in one-third of gross vehicle weight ratings;
Georgia - not uploading one-third of driver license number and State and one-fourth of cargo body type;
Idaho - no 1995 data uploaded; did upload good 1994 data;
Illinois - no driver identification data uploaded, due to Illinois privacy laws;
Iowa - no vehicle license plate or State uploaded on 88 percent of accidents;

Louisiana - no driver license number or State on 42 percent of accidents;
Maine - no 1995 data uploaded; did upload good 1994 data;
New York - uploaded only 31 accidents;
Ohio - uploaded driver license number and State on only 48 percent of accidents;
Oklahoma - uploaded no accident event data and no vehicle identification number data;
Oregon - uploaded no vehicle license number and State data;
Texas - no 1995 data uploaded; did upload good 1994 data;
South Carolina - uploaded no data on vehicle configuration, accident events, cargo body type, gross vehicle weight rating, and hazardous materials cargo information;
Virginia - no data uploaded on accident events, vehicle license number and State, vehicle identification number; and
West Virginia - no 1995 data uploaded; limited 1994 data uploaded.

Question. How many States do not issue summons or citations with fines when a vehicle and/or driver is placed out-of-service?

Answer. The OMC does not require States to report the internal enforcement policies of State law enforcement agencies. Consistent with the ISTEA, the FHWA encourages the States to issue effective fines and penalties that promote compliance and serve as a deterrent to unsafe practices. The OMC, CVSA, and the States continually strive to standardize procedures and encourage the adoption of uniform penalties. Fines are only one of several sanctions that a State may impose as a deterrent to future noncompliance. For example, State compliance reviews resulting from excess out-of-service rates can affect a motor carrier's safety rating. Further, there are serious consequences for motor carriers when placing drivers or vehicles out of service, including disruption of pickup and delivery schedules, and the high cost of obtaining the required roadside repairs.

As we develop and expand the judicial outreach program, we will evaluate a broad range of effective means to ensure motor carrier and commercial driver safety compliance, including licensing sanctions, CVIS, ratings, effective fines and penalties, and education and outreach.

The FHWA is continuing to work with the States to ensure effective, uniform treatment of motor carriers and drivers in enforcement actions.

Question. Section 117(d) of the Motor Carrier Safety Act of 1990 required FHWA to issue regulations requiring each of the MCSAP States to impose a penalty on those motor carriers that failed to return an inspection form certifying that repairs were completed. Did FHWA choose to issue this requirement? If so , when and where was it issued? Is this requirement an efficient and effective part of the MCSAP?

Answer. The verification initiatives required by the Motor Carrier Safety Act of 1990 were incorporated with the comprehensive changes mandated by the ISTEA and were published on September 8, 1992. This rule (49CFR350.9(p)) requires the States to have comprehensive enforcement and reinspection of out-of-service drivers and vehicles to verify compliance and correction of all violations. Further, 49CFR350.13 (b)(4)(iv) and (v) require the State to describe in its State Enforcement Plan its out-of-service reinspection, verification, and covert activities. Under 49CFR350.9(m), States are required to take appropriate steps to ensure that fines imposed for violations are reasonable and appropriate.

The paperwork tracking and monitoring systems the States have implemented for verification are costly and labor intensive. Some also question the validity of self-reporting by motor carriers and drivers that the violations have been corrected. As the MCSAP moves to a performance-based program, we will be monitoring the results of the States' programs rather than checking whether or not paperwork systems are in place. The results of the special covert project conducted by the States and FHWA last summer found that half of all out-of-service vehicles and drivers were reinspected at the inspection site. The States found that 93.6 percent of vehicles and 90.4 percent of drivers complied with the out-of-service order. This project demonstrated that overall, the industry is in good compliance with out-of-service orders and understands the risk of continuing on the highway with serious safety violations uncorrected.

In addition, the first national Peer Review conducted in FY 1995 identified 47 practices that the States found most effective. The overall recommendations of the national Peer Review was for States to use a broad range of OOS verification programs in education, prevention, enforcement, sanctions, and carrier review strategies to ensure compliance. In a follow-up survey of the States' implementation of these recommended practices, we found States use, on average, 19 enforcement and compliance practices to ensure OOS verification. Further, they report planning to use, on average, 11 new strategies.

The University of South Carolina participated in the Peer Review and continues to offer direct, individual assistance to any State that requests it.

As the States measure compliance in the future, they will be able to demonstrate improvements in the effectiveness of their overall verification and covert activities. However, FHWA believes that the answer for out-of-service verification is deployment of ITS/CVO technologies which will streamline the compliance verification process for the States and ensure all safety violations are corrected.

Question. Which States received supplemental incentive grants during each of the last two years? For which purposes? In what amounts?

Answer. The information for FY 1995 is complete. All of the Supplemental Incentive Grants for FY 1996 have not been awarded yet. Several States are completing grant requests for these funds for the safety and enforcement activities targeted to high crash corridors. The States are: California, Florida, Georgia, Illinois, Michigan, New York, North Carolina, Ohio, Pennsylvania, and Texas.

FY 1995:

STATE	AMOUNT	PURPOSE
Alaska	$33,600	Rural CMV traffic enforcement
Arizona	$78,050	Medical review pilot
Colorado	$91,733	Pen-Based computers and CMV OOS repair verification
Connecticut	$14,000	Pen-Based computers
Illinois	$32,483	Bus inspections
Indiana	$84,234	OOS repair verification program and CDL medical qualifications
Kentucky	$16,000	Motor coach education
Louisiana	$51,200	Enforcement vehicles
Minnesota	$116,225	Impaired/Ineligible Driver Project
New Jersey	$88,469	Repair verification
Ohio	$120,000	Pen-Based computers and traffic enforcement

Oregon	$104,188	Traffic enforcement, VASCAR units/training, and portable WIM scales
Utah	$128,103	Pen-Based computers and local driver/vehicle inspections (SEMI project)
Washington	$245,804	Mobile Pen-Based computer network, private bus inspection program, and enforcement vehicles

FY 1996:

STATE	AMOUNT	PURPOSE
Alaska	$23,320	Bus Compliance Reviews
Arizona	$48,680	Pen-Based computers
Colorado	$70,386	CMV crash reduction in high crash corridors
Massachusetts	$53,606	Compliance Reviews
Washington	$60,000	Local agencies inspection compensation and log book/Hours of Service surveillance
Wyoming	$26,912	Compliance Reviews

Question. What other discretionary awards (secondary grants, carryover funds, etc.) were provided during each of the last two years? For which purposes? In what amounts? To which States?

Answer. The information for FY 1995 is complete. All of the discretionary grants for FY 1996 have not been awarded yet.

FY 1995:

STATE	AMOUNT	ACTIVITY
American Samoa	$4,000	100/200 MCSAP Site Project
Arizona	$52,000	100/200 MCSAP Site Project
California	$232,292	Drug & Alcohol recognition training, additional HM training, Intergovernmental staff development position, high crash corridor project, ITS/CVO technologies along border
Colorado	$255,997	100/200 MCSAP Site Project and secondary
Connecticut	$120,642	Secondary and 100/200 MCSAP Site Project
District of Columbia	$208,000	CDLIS Project and 100/200 MCSAP Site Project
Idaho	$458,908	Secondary, video equipment and False Log Distance Learning Project
Illinois	$4,000	100/200 MCSAP Site Project
Kansas	$32,000	100/200 MCSAP Site Project
Kentucky	$40,000	100/200 MCSAP Site Project
Louisiana	$46,638	Secondary
Maryland	$72,000	Traffic enforcement and 100/200 MCSAP Site Project
Massachusetts	$106,267	Traffic enforcement, bus inspections and travel for Challenge '95
Michigan	$24,000	100/200 MCSAP Site Project
Minnesota	$97,043	Pen-Based computers and 100/200 MCSAP Site Project
Missouri	$250,834	State and local equipment replacement, Pen-Based computers, 100/200 MCSAP Site project, HM training course development curriculum

STATE	AMOUNT	ACTIVITY
Nebraska	$56,000	100/200 MCSAP Site project
New Hampshire	$4,000	100/200 MCSAP Site project
New Jersey	$125,098	Bus inspections, 100/200 MCSAP Site project, and travel for Challenge '95
New York	$392,899	Laptop computers, bus inspections, intergovernmental staff development, high crash corridor project, and 100/200 MCSAP Site project
North Carolina	$100,000	High crash corridor project
Ohio	$64,000	100/200 MCSAP Site project
Oklahoma	$12,000	100/200 MCSAP Site project
Oregon	$9,024	100/200 MCSAP Site project and travel for Challenge '95
Pennsylvania	$32,000	100/200 MCSAP Site project
Rhode Island	$113,323	100/200 MCSAP Site project and Secondary
South Carolina	$12,000	100/200 MCSAP Site project
Utah	$162,627	Secondary and 100/200 MCSAP Site project
Virginia	$89,000	Pen-Based computers, traffic enforcement, 100/200 MCSAP Site project
Vermont	$74,000	Comprehensive traffic enforcement, 100/200 MCSAP Site project
Washington	$37,600	100/200 MCSAP Site project and travel for Challenge '95
West Virginia	$12,000	100/200 MCSAP Site project
Wisconsin	$36,000	100/200 MCSAP Site project
Wyoming	$40,000	100/200 MCSAP Site project

FY 1996: This is a partial list. Not all funds have been awarded yet.

STATE	AMOUNT	ACTIVITY
California	$37,000	Intergovernmental staff development
Colorado	$195,426	Secondary
Connecticut	$60,361	Secondary
Idaho	$524,766	Secondary and video project
Louisiana	$208,664	Secondary
Maine	$99,000	Laptop computers, Pen-Based computers
Massachusetts	$110,819	Secondary and travel for Challenge '96
Mississippi	$4,360	Bus ramps
Nevada	$39,435	Pen-based computers
New Jersey	$1,200	Travel for Challenge '96
New York	$60,384	Laptop computers and training
Oregon	$997	Travel for Challenge '96
Rhode Island	$1,219	Travel for Challenge '96
South Carolina	$19,200	Pen-based computers
South Dakota	$140,000	SAFETYNET system
Utah	$313,994	Secondary, OOS verification, SEMI project, intergovernmental staff development
Virginia	$60,000	Pen-based computers
Washington	$720	Travel for Challenge '96
Wyoming	$14,621	Hours of Service project at Ports

Question. FHWA has been placing considerable emphasis on the State's conducting compliance reviews to supplement the Federal program. When the States do find violations worthy of enforcement, how effective are their civil or administrative penalty systems? How many States cannot impose civil penalties? How many

States referred enforcement cases/violation notices to FHWA for prosecution? How many cases were referred?

Answer. We do not have information on the number of States that cannot impose civil penalties. Although there are a few that do, the majority do not. Those that do have such authority have penalties which are as effective as the Federal penalties in gaining compliance and improving motor carrier safety. In FY 1995, 28 States referred 183 enforcement cases to the Federal staff.

Question. FHWA has conducted a "quality process review" of the MCSAP. What were the results in each of the following areas:

--the quality of State data systems,
--the quality of the State inspection process,
--whether State inspections were being completed in compliance with State policies,
--how The States collect inspection data and verify carrier names,
--the quality of State-conducted compliance reviews,
--the adequacy of NGA accident reporting, and the
--quality of training being provided to State personnel.

Answer. During FY 1995, each OMC Division conducted a Quality Process Review (QPR) of each element (except the fiscal element) of their State MCSAP. The objectives of these reviews were to improve lines of communication between Federal and State personnel, identify existing problem policies, processes or procedures and new and innovative practices. The QPR required inquiry into State policies and procedures and verification of those procedures with on-site observations of the various activities. It was organized into separate modules: Inspection Policy and Procedures; Inspectors and Inspections; SAFETYNET and Carrier Census; Compliance Review Policy; Compliance Review Process; Training and NGA Data Processes. Although the QPR's are still being analyzed, there are some preliminary results. For example, with respect to State data systems, it appears that the systems are generally of good quality. The real problems seem to be lack of resources in some States to hire knowledgeable personnel and to properly train personnel in the proper use of their systems.

The quality of the inspection process, with the exception of a few isolated deviations, appears to be high, and consistent with State and Federal inspection policy. Inspection data is being collected through use of pen and laptop computers with increasing frequency. This has provided increased accuracy in carrier identification. State conducted compliance reviews are also high quality, and adhere to State and Federal policy and procedures.

The review on NGA data indicates that all States have implemented the 22 elements. Of the 45 records which have been analyzed, 43 indicate they provide training in NGA reportable criteria during academy training, in-service training and/or use of videos and periodic division meetings. Thirty-three States provide this same training to local agencies as well.

Analysis of the QPR Training module has not yet been completed.

Question. What is OMC doing to address each of the concerns that were raised in these analyses?

Answer. The analysis of all of the QPR results has not been completed. As results of various programs are available, we will provide them to the appropriate program offices to assist them in monitoring and improving the national program. For example, information from the NGA portion of the Quality Process Review (QPR) has been provided to the Office of Information Analysis, Analysis Division, to assist them in monitoring and improving the program. We will use this data to monitor the timeliness of data submitted by the States and provide technical support to States which experience technical problem.

Further, we intend to produce a report which reflects a State-by-State breakdown of each QPR module, a national summary and recommendations addressing identified problem areas. This will assist each Division in its comprehensive monitoring of its State MCSAP activities. Comparison to the national benchmarks for various program elements will assist the States and the Division offices to improve the quality of their individual programs.

Question. FHWA assembled a quality review team of Federal and State personnel to improve the State enforcement plan process. What were the recommendations of this team and how were these results used?

Answer. The MCSAP Quality Improvement Team conducted a survey designed to assess the satisfaction of Federal and State MCSAP managers with the MCSAP grant application process. The survey was used to identify the areas within the MCSAP application process that should be improved and to establish a baseline for measuring process improvements. The survey also identified a number of program, regulatory, and reauthorization issues that were forwarded to the appropriate program offices for review and action, if appropriate. The survey found that the most frequently identified area for improvement was the State enforcement plan format. Based on the results, the Quality Improvement Team developed a standardized, streamlined State safety planning format which presents the required application elements in a consistent manner; eliminates duplicate and unnecessary information; ensures compliance with all regulatory and fiscal guidance; provides a standard format for presenting the most commonly required data; and provides the necessary flexibility for inclusion of information unique to each State. Because each State is unique, problem identification, problem solution and self-evaluation sections of the improved State safety plan have added flexibility. In May 1996, the Quality Improvement Team conducted a follow-up survey of Federal and State MCSAP managers which showed increased satisfaction with the MCSAP grant application process resulting from the team's work. The report stated, "Respondents felt the changes in the application format and the access to electronic technology improved the grant application process".

Question. For FY 1995, FY 1996 and FY 1997, how much of the MCSAP allocation for public education funds was or will be used for the "troopers N truckers" program? What is the value of this effort? Why are you convinced that this effort is needed to persuade road troopers to enforce traffic violations against the public adversely affecting commercial vehicle safety? What data exist to support your assertion?

Answer. The Troopers and Truckers program has been re-named Law Enforcement and Truckers for Safety program (LETS). In fiscal year 1995, $100,000 of MCSAP Research and Development funds was allocated for the LETS program to create a national outreach program and develop enforcement cues. The program will be implemented in September, 1996 with FY 1995 funds. Therefore, no FY 1996 funds were allocated. In FY 1997, plans include $300,000 Research and Development funds to begin development of enforcement cues.

The intent of this program is best described as Phase I and Phase II. Phase I is the ride-along program where officers and truck drivers will ride together to foster a better understanding of the challenges both face and learn each other's perspectives on how to improve highway safety. Such a joint educational effort accomplishes several things, including reducing traffic accidents, saving lives on the highway, fostering mutual respect between truck drivers and the law enforcement community, and lowering the costs associated with accidents.

In Phase II, the FHWA expects to develop operational definitions such as enforcement cues or indicators, to determine enforcement of unsafe driving behavior in and around trucks. A cue is a measurable indicator that a car driver is demonstrating an unsafe driving behavior around a truck which could result in a crash. This will result in an increase in the detection of serious moving violations. It also provides for an opportunity for partnerships to work together to develop cues as well as influence a behavioral change in the psychology of all drivers on the road. Currently, there are no existing measures to indicate unsafe driving actions of passenger vehicle drivers operating in and around trucks. The results of the Phase I ride-along program and the data generated will be reviewed and will serve as the foundation to begin Phase II. Cost estimates for Phase II are still under development and will be based on the results of Phase I. FY 1997 and FY 1998 funding needs for this phase have not yet been finalized.

Crash data show that 13 percent of all traffic fatalities result from crashes involving commercial vehicles. Consequently, in 9 out of 10 fatal crashes between cars and trucks, the occupants of the car are killed as opposed to commercial motor vehicle drivers and occupants. In addition, about 70 percent of multi-vehicle crashes involving large trucks are the result of error on the part of non-commercial driver. Furthermore, the Truck and Bus Safety Summit identified Partnerships, Enforcement and Communications/Public Information among the top 17 priority issues. The LETS program is designed to reduce highway crashes through voluntary compliance of all traffic laws and to increase awareness of driver responsibilities. There is a need for new enforcement strategies. The LETS program sets the stage to develop these enforcement cues.

Question. How many States go into hazmat shipper facilities to conduct reviews? In your answer, please delineate between hazmat shipper facilities and combined shipper and carrier facilities, if possible. How many States do not have the legal authority to conduct a review of a hazmat shipper facility offering materials for highway transportation? What is FHWA doing to encourage this activity as envisioned in ISTEA?

Answer. In FY 1995, two States were conducting reviews of hazmat shipper facilities and 31 were conducting reviews of carrier/shippers. Only two States have authority to conduct reviews of hazmat shippers which are not also carriers. FHWA continues to encourage State MCSAP agencies that have a highway safety problem caused by hazmat shippers to recommend to their legislatures that they incorporate this authority into their State laws.

Question. Are you monitoring State adoption of the recommendations of the peer review study on out-of-service verification? What are you finding? How many States have adopted the various recommendations? Have you surveyed the States? Would this be a worthwhile activity?

Answer. Yes, we are monitoring State adoption of the recommendations. A follow-up survey of the States was conducted in January 1996 by the University of South Carolina, College of Criminal Justice, to determine which verification strategies the States were currently using or considering. Forty-three States responded to the survey. The results of the survey demonstrated that States use, on average, 19 different enforcement strategies outlined in the peer review on out-of-service (OOS) verification. The States also report that they plan to use or are considering using, on average, an additional 11 strategies. This is consistent with the overall recommendations of the national Peer Review for States to use a broad range of OOS verification programs in education, prevention, enforcement, sanctions, and carrier review strategies to ensure compliance. The broad range of initiatives in the categories indicates development, in accordance with the Peer Review recommendations, of a balance of efforts rather than concentrating narrowly on a few enforcement strategies. This survey demonstrates how States adjust the extent and scope of their verification activities to the extent and nature of its verification challenge.

Question. What success have you had in assuring that those commercial drivers convicted as a result of your DIAP program are disqualified under the CDL program? What is the relationship between these two activities?

Answer. As defined in 49 CFR Part 383, conviction of transportation, possession, or unlawful use of a controlled substance is a CDL disqualifying offense with a disqualification period of 1 year to lifetime. A CDL disqualifying offense prohibits a driver from operating and a carrier from permitting or requiring a driver to operate a commercial motor vehicle. States must be in substantial compliance with the disqualification requirements or they may jeopardize a portion of their Federal Aid Highway funding. With the mission of the FHWA Drug Interdiction Assistance

Program (DIAP) to assist law enforcement officers in the detection and apprehension of transporters and users of illicit drugs relating to commercial motor vehicles, the DIAP and CDL programs directly support one another.

In FY 1996, a segment was added to the drug interdiction training curriculum to familiarize trainees with CDL disqualification issues. Drug interdiction training has been provided in approximately 30 States to over 5,000 officers thus far this fiscal year, with a large concentration of training along the southwest border. Additionally, DIAP grant funds allocated in FY 1996 support projects which include the development of processes to appropriately revoke or otherwise affect the commercial motor vehicle driver's CDL upon conviction of using, possessing, possessing for sale or hauling illicit drugs in bulk. These processes should result in post-drug arrest follow-up investigations to ascertain the court disposition and, upon conviction, to assure that appropriate CDL disqualification procedures result in CDL revocation.

RESEARCH AND TECHNOLOGY TRANSFER

Question. What goals milestones has FHWA established for its SHRP implementation program? What progress has been made on each?

Answer. In defining program objectives for SHRP implementation, FHWA works closely with States and other implementing agencies. On-going communication and cooperation within technical working groups (TWGs, which include participation from States, industry, and academia), AASHTO committees, Transportation Research Board committees, Local Technical Assistance Program meetings, and other means help FHWA directly address the needs of users. Key areas of work include:

Asphalt—Embracing the goals set out by the Asphalt TWG, FHWA is working with the State DOTs toward adoption of the Superpave binder specification by 1997, and adoption of the volumetric mix design specifications by 2000. To accomplish this, we have supported the establishment of 5 Superpave Regional Centers, established a pooled-fund equipment purchase for States, are funding a full program of training through the National Asphalt Training Center, have produced a joint National Asphalt Pavement Association/FHWA videotape on Superpave, and offer other means of technical assistance. With cooperation from the user/producer community, we are seeing very significant advances, and expect that these goals will be accomplished.

- **Concrete and Structures**—More than 40 products were developed under this program, in the broad categories of bridge condition assessment, bridge protection and rehabilitation, concrete durability, high-performance concrete, and alkali-silica reactivity. The focus now is on refining the products and, through such means as showcase workshops, introducing them to State DOTs and contractors. Sixteen workshops in these areas have been held as of June 1996, and about 35 more are scheduled or planned for the future. Seven State have been recruited to test, evaluate, and demonstrate High Performance Concrete for Structures.
- **Highway Operations**—This area includes pavement preventive maintenance, innovative pavement maintenance, snow and ice technology, and work zone safety devices. Many of the products in this area are becoming commercially available, and FHWA supports adoption and use of this equipment through test and evaluation projects, guidance manuals, workshops, and exhibits. These efforts have been quite successful in highlighting the value of these products. For instance, since 1992 SHRP work zone safety devices have been displayed at over 40 major events such as those sponsored by LTAP, AASHTO, and other State and local associations. We are increasing efforts to reach out to local transportation agencies in the areas of preventive maintenance, innovative repair materials, and winter maintenance. Three showcase contracts are underway in these areas.
- **Long-Term Pavement Performance**—Major progress is being made in carrying out the LTPP program, and FHWA, in continuing cooperation with AASHTO and the TRB, is actively managing data collection, data analysis, and delivery of LTPP products. In September 1995, *The Long-Term Pavement Performance Roadmap: A Strategic Plan* was published. This document contains the data analysis plan for developing additional LTPP products, and it identifies critical issues facing the LTPP program. In addition, the *LTPP Product Preview* produced in March 1996 describes

available and planned LTPP products that will be produced by the Program, which is planned to continue over the next 10 years.

Question. How much time and money does FHWA and the State DOTs need to complete development, testing, and deployment of SHRP products?

Answer. We have been actively considering this question as part of our preparations for ISTEA reauthorization, and are seeking additional input from States and other stakeholders at this time. It is clear that the LTPP program should be actively supported throughout its planned 20-year life, and we estimate that approximately $16 million per year is required.

As for other SHRP products, we believe that the continuing development, improvement, and validation of the Superpave system should also be very actively supported. Most of the development in areas of software models and simpler, more cost effective equipment is expected to be complete by 2002. We plan on continuing work to validate the performance prediction capabilities of Superpave through accelerated testing and field validation of constructed sections; and this work should continue through approximately 2010. This longer-term, continuing attention to improvements in asphalt pavement technology is expected to be extremely valuable to the transportation community, with potential savings of literally billions of dollars.

In addition to LTPP and Superpave, we expect to continue to support implementation of other SHRP products in the areas of concrete and structures and highway operations through showcases, workshops, test and evaluation projects, exhibits, training, and technical assistance. As these technologies continue to advance through adoption of improved materials, processes, and other products, the SHRP-originated products are being incorporated into the overall FHWA technology applications program.

Implementation also requires a variety of activities to support, market, and assess the products of SHRP, such as newsletters, an information clearinghouse, international coordination efforts, conduct of technical working groups, overall evaluation and assessment efforts, and other communication and program management efforts.

Beyond funding for LTPP as noted above, we believe a funding allocation for FY 1998 through 2002 of $10 to $14 million annually is required.

Question. How will you use the results of the LTPP data and analysis to focus future pavement research based on a goal of long-lived, low maintenance pavements?

Answer. In 1995, a strategic LTPP data analysis plan was prepared and published as a part of the Long Term Pavement Performance Program Roadmap. This analysis plan identifies a total of 37 project areas addressing different aspects of the need for greater longevity and cost-effectiveness in our highway pavements. Fifteen of those project areas are identified for potential pursuit within 3 years; another 11 for pursuit 3 to 5 years into the future, and the remainder 5 to 10 years into the future. These time frames were established based upon the ability of the LTPP data base to support the analysis needs. Budgetary constraints will likely prohibit effective pursuit by FHWA of all of the project areas identified. Therefore, a process of refinement and priority setting is currently in progress, to ensure that the analyses sponsored by FHWA are those which will yield the greatest overall benefit to the public. This process is being carried out in consultation with representatives of the State highway agencies, the highway industry, and academia, through a TRB Expert Task Group. The results of this refinement and priority setting process will be incorporated into an updated version of the Roadmap in early 1997. Near term projects already identified as a high priority are being pursued.

Question. Please discuss the scope and nature of your pool-funded projects to get SHRP equipment out in the field.

Answer. In early 1992, the States agreed to pool a portion of their Federal-aid research funds to purchase sets of testing equipment for the "Superpave" (Superior Performing Asphalt Pavements) system. This set includes testing equipment for both the asphalt binder and mixture specifications. The binder equipment includes the Pressure Aging Vessel, the Rotational Viscometer, the Bending Beam Rheometer, the Dynamic Shear Rheometer, and the Direct Tension Tester. The mixture equipment includes the Superpave Gyratory Compactor, the Superpave Shear Tester (SST), and the Indirect Tensile Tester (IDT).

All five binder-related pieces of equipment have been delivered to the 52 participating highway agencies except for the Direct Tension Tester, which is undergoing further testing and evaluation. In addition, all agencies have received the Superpave Gyratory Compactor. An initial buy of six units each of the SST and the IDT has also taken place, and these units are undergoing testing and evaluation prior to full-scale purchases. Acting in response to inquiries from States, FHWA has also approved the use of regular Federal-aid funds for purchase of additional sets of Superpave equipment by interested States.

The pooled-fund approach has been very successful in supporting the implementation of the Superpave system, in that the "buying power" of fairly large-scale purchases have given us the ability to work closely with manufacturers to develop high-quality and cost-effective products. In addition to the pooled-fund approach which has provided Superpave equipment, additional SHRP equipment is also available to interested States on a loan basis. Usually available as part of test and evaluation projects, hands-on technical assistance, or showcase projects; loan equipment has included impact-echo devices for concrete pavements, hydraulic fracture test chambers, and air permeability test devices.

Question. Section 6015 of ISTEA requires 15 percent of the R&D funds to be used for longer term research. Please provide quantitive data to substantiate that this provision is being implemented.

Answer. The FHWA must spend 15 percent of its research funds on long term research projects which are unlikely to be completed within 10 years, 23 U.S.C. 307(a)(3)(B). Under 23 U.S.C. 307(a)(3)(A), the 15-percent mandate applies to the following research funds:

- SHRP Implementation funds, 23 U.S.C. 307(b);
- SHRP funds, 23 U.S.C. 307(d) -- authorized for 1987-1991;
- Applied Research and Technology funds, 23 U.S.C. 307(e); and
- research funds made available out of the administrative takedown deducted pursuant to 23 U.S.C. 104(a), e.g., research programs supported by the Highway Trust Fund through the annual GOE appropriated budget.

For FY 1996, these funds provide a $153-million base for estimating the 15 percent threshold (or $23 million) which FHWA must spend on long term research. The 20-year initiative, Long Term Pavement Performance (LTPP) is funded at $14 million for FY 1996, as is the Automated Highway System (AHS). Thus, funding for LTPP and AHS will allow FHWA to exceed the 15 percent threshold as derived by the Title 23 requirement. The Office of Engineering R&D has an Exploratory Research Team, and the Office of Safety and Traffic Operations R&D has an Advanced Research Team. These teams will use another $4 million for advanced research. Other long term research initiatives in our R&T program include the Interactive Highway Safety Design Model (conducted under safety R&D program), and TRANSIMS under planning R&D.

Question. Congress has never placed an obligation limitation on the Section 6005 program, which authorizes $41 million for FY 1997 for applied research and technology testing. What are the implications of setting such a limitation? What amount of funds could be effectively spent? Compare the contract authority level versus the obligated level for Section 6005 for fiscal year 1992 through 1996.

Answer. The original language in ISTEA Section 6005 included the phrase the amounts shall not be subject to obligation limitation. However, the Appropriations Act of 1994 did change that and the funds under Section 6005 have been subject to obligation limitation ever since. The implications of a limitation would be to delay programs and to scale back the overall effort in the final year of ISTEA funding. It is anticipated that all of the funds authorized for FY 97 can be effectively spent. See question regarding flexibility for Heated Bridge technologies. The following table summarizes the Section 6005 authority versus the obligated levels. The legislation was signed after the beginning of FY 92 and because it was a new program, first year obligations were minimal. The Designated Technologies were particularly difficult to get started and it wasn't until FY 94 that significant amounts were obligated. The Heated Bridge Technologies were funded with the largest amount, $4 million per fiscal year, and were the most difficult to find candidate bridge sites. The bulk of the amount rescinded in FY 95 came from the Designated Technologies.

ISTEA Section 6005 Summary Table (in millions)

FY	Carryover	New Authority	Rescission[a]	Total Available	Allotment	Obligated	Balance
92	-	35.000		35.000	35.000	13.360	21.640
93	21.640	41.000		62.640	62.640	32.970	29.670
94	29.670	41.000		70.670	39.996	39.255	31.415
95	31.415	41.000	27.640	44.775	44.775	44.775	0.000
96[b]	0.000	41.000		41.000	41.000	38.000	3.000

Designated Technologies Only (in millions)

FY	Carryover	New Authority	Rescission[a]	Total Available	Allotment	Obligated	Balance
92	-	12.500		12.500	12.500	0.000	12.500
93	12.500	12.500		25.000	12.500	1.800	23.200
94	23.200	8.500		31.700	8.500	13.003	18.697
95	18.697	8.500	20.485	27.197	6.895	6.712	0.000
96[b]	0.000	8.500		8.500	8.500	5.500	3.000

[a] Rescission was FY 95 only.

[b] FY 96 obligations are estimated.

Question. Is the primary thrust of your research and development program on short-term payoffs?

Answer. Approximately $370 million is available in FY 1996 for FHWA's research and technology program, including ITS—about half from the annual GOE appropriations and half from ISTEA. FHWA's R&T program typically has a 15-50-35 split—that is, about 15 percent of our program is directed at exploratory or long term research projects which are likely to be completed in 10 years or longer; 50 percent is directed at applied research projects which are likely to be completed within 2-5 years; and 35 percent is directed at the refinement and delivery of research products for use by the transportation community.

The FHWA's R&T program is well-balanced with respect to the needs and expectations of our partners and customers. The transportation community—States, local governments, MPO's, and industry—look to FHWA to conduct long term, high risk, high potential payoff research. They expect FHWA to advance the state of the practice through our applied research. They rely upon our technical assistance in identifying and adapting technology to the problems they confront today.

Question. Does advanced research have a real home within the FHWA R&D structure? What quantitative documentation do you have to support your response?

Answer. Yes, advanced research has a home within FHWA's R&T program. The Office of Engineering R&D has an Exploratory Research Team and the Office of Safety and Traffic Operations R&D has an Advanced Research

Team. As the names of these teams indicates, they conduct advanced, exploratory research. For example, the Exploratory Research Team is conducting research on microstructure of highway materials, the use of advanced mathematical techniques for image analysis (wavelets, fractals, Hough transform, etc.) for feasibility of detecting cracks in digital images of surfaces, and methods (Barkhausen effect, positron annihilation, acoustic dispersion) for detecting changes in steel microstructure that predict the onset of fatigue cracks. Likewise, the Advanced Research Team is conducting research on the potential highway engineering applications of artificial intelligence and virtual reality technology, and the use of vehicle image data for testing vehicle detection algorithms that will be an integral part of future ITS.

As noted earlier, FHWA is conducting other long term research, including Long Term Pavement Performance (LTPP), the Automated Highway System (AHS), the Interactive Highway Safety Design Model (conducted under safety R&D program), and the development TRANSIMS model for travel demand forecasting and metropolitan planning analyses (under planning R&D). Section 6015 of ISTEA requires 15 percent of the R&D funds to be use for longer term research; for FY 1996, FHWA must spend at least $23 million on long term research. The 20-year initiative, LTPP initiative is funded at $14 million for FY 1996, as is the Automated Highway System (AHS); so FHWA is exceeding this year's spending threshold for long term research.

Question. Under the Section 6005 program, the ISTEA names certain priority technologies, such as heated bridge technology. ISTEA specifies that you must spend $4 million on this technology each year. How much are you able to spend wisely? What is the amount of unobligated monies related to this earmark? Since this authority is expiring at the end of FY 1997, would it be worthwhile to provide some flexibility on the use of these monies? How would you use such flexibility?

Answer. Heated bridge technologies were one of the technologies designated and funded for test and evaluation under ISTEA Section 6005. The project was aggressively pursued by FHWA through two formal solicitations, an active outreach program involving contacts with bridge engineers throughout the country, and development of a promotional video. The complexity of the technologies, limitations on placement, and unknown future operating costs have deterred many highway agencies from participating in the program. A funding level of $1 million per year for the two remaining years of ISTEA, fiscal years 1996 and 1997, would allow for the evaluation of the existing heated bridge projects and the successful completion of the program. For fiscal years 1992 to 1995, $16 million was available and we were able to obligate $3.813 million. There is no unobligated balance for this earmark at the beginning of fiscal year 1996. In fiscal year 1995 all of the unobligated heated bridge funds were rescinded. The rescission amount for heated bridges was $12.187 million. Unless the legislation is changed to provide some flexibility on the use of these funds, we expect to have an unobligated balance at the end of fiscal year 1996 of about $3 million. The broad spectrum of technology transfer needs far outstrip the available funding from ISTEA as well as GOE budgets. It would be very worthwhile to provide some flexibility in the use of these funds and make them available for other bridge technologies that address the priority needs of the agency. For fiscal year 1996, we made $2 million in Section 6005 funds available for high performance materials for structures. This activity is an example of the type of project that could benefit from flexible use of the heated bridge technologies funds.

Question. How does your FY 1997 budget propose to help close the gap between what is technically possible as a result of new highway innovations and the current state of the practice?

Answer. The gap is multi-faceted. It exists between the state-the-art and the state-of-the-practice in all areas of technology including pavements, structures, safety and other functional areas. It is growing with the loss of expertise through the retirement of Interstate-era experts, the downsizing of transportation entities, and the need for new skills and expertise (telecommunications, new materials, people-machine interface, etc). The FHWA's proposed FY 1997 budget will help close the gap between what is technically possible and the current state of the practice.

The efforts of the National Highway Institute (NHI) and the Local Technical Assistance Program (LTAP) will help close the expertise gap. The NHI was established by legislation in 1970 to develop and administer, in cooperation with States, a training program of instruction for Federal, State and local highway personnel. The NHI currently has about 100 courses available and another two dozen under development. The NHI delivers about 600 course presentations annually, training over 18,000 highway personnel. The NHI's budget request will support the presentation of training courses covering topics such as: asphalt and concrete pavement construction, bridge engineering, seismic design of bridges, congestion management, use of pavement design and construction technology developed under the Strategic Highway Research Program (SHRP), environmental safety features to minimize injuries and fatalities, and ITS. It also will support the development of two or three new courses related to infrastructure deterioration and reconstruction.

The LTAP provides an equally important means of providing training and technical assistance, particularly in small urban and rural communities in the United States including Puerto Rico and American Indian tribal entities. Approximately 60,000 people are trained annually through 55 LTAP Technology Transfer (T^2) Centers; the NHI coordinates closely with the LTAP program and makes its materials available to the T^2 Centers. Hundreds of thousands more are reached through newsletters, technical publications, videotapes, roadshows, teleconferences, and other means. The budget request for LTAP will help complete the development and distribution of products and activities initiated in FY 1995 and 1996 including training modules (work zone traffic control, road surface maintenance, roadway drainage maintenance, and employee management and motivation) and videotapes and pocket guides (utility cuts, motor graders and vehicle fleet management). Work will begin on special products needed by Alaska natives and U.S. territories.

The Policy and Planning research programs will help close the gap in the availability of tools for assessing highway transportation system performance. The budget request for Policy research includes initiatives to improve data management for fuel usage, highway revenue, truck weight, traffic monitoring and transportation-related census data. These data are needed to analyze the policy implications associated with emerging economic, environmental and financing issues. Results of research initiated under the budget request will include (1) a summary of State and local experience in promoting and implementing market pricing and other innovative demand management strategies, (2) a summary of innovative financing strategies, (3) the development of integrated network-based intercity passenger and freight demand models, (4) an evaluation of the technological innovations affecting passenger and freight transportation, including their implications for future investment requirements, and

(4) an analysis of highway investment trends and patterns and their relationship to National priorities for safety, system preservation, and interstate commerce.

The budget request for Planning research will support the continued development of new and enhanced methods for the analysis of land use, intermodal transportation, congestion and environmental interrelationships and to implement planning processes that meet Congressional legislative requirements. The budget request will support major modules of the forecasting model known as TRANSIMS and make them available to State and local transportation planners. The development schedule is to deliver the traffic simulation module in early 1997, followed by an air quality analysis feature and trip planner module later in 1997. Work will begin on the development on land use activities and system integration components. The budget request also will enable work to begin developing improved approaches for States and metropolitan planning organizations in monitoring and forecasting the effectiveness of multimodal congestion relief and mobility enhancement programs, as well as improving the linkage between Geographic Information System applications and analytical tools used for statewide planning.

The Pavements and Structures research programs will help close the gap in our understanding of advanced materials, monitoring, inspection and other technologies for improved physical infrastructure. The Pavements research program has consolidated the Long Term Pavement Performance program which was a separate line item in the FY 1996 request. The overall goal of the Pavements research program is to develop cost-effective and better-performing pavements. Superpave (Superior Performing Asphalt Pavements), for example, brings together SHRP products into a coordinated system of performance based specifications, testing and equipment used for the selection and design of paving mixtures. The objective is to achieve the optimum design and selection of paving mixtures in relation to the expected traffic on the roadway, thereby increasing the life and performance of the pavement. Superpave devices measure the material properties of asphalt mix samples; the results are entered into performance models to predict how well a mix will withstand fatigue cracking, low-temperature cracking and rutting. Over the next few years, Superpave technology will be field tested in cooperation with several States. The 1997 budget request will help support the validation of Superpave tests and models, and develop design criteria for the Superpave Gyratory compactor. Other pavement related research initiated under the budget request include: developing of performance specifications for rigid pavements, evaluating the use of modified binders in asphalt paving mixtures, and verifying the performance characteristics of various non-hazardous waste materials used in highway construction and maintenance.

The goals of the Structure research program are to develop and use strong, more durable structural steel, concrete and other materials. The use of high performance concrete for bridges is currently being field tested. High performance concrete has higher strength and increased durability compared to typical concrete materials. The higher strength allows bridge lengths to be increased, or fewer girders to be used for a given bridge length. The increased durability results in the concrete having a greater resistance to chloride intrusion, and hence a lesser chance for corrosion of steel bars in the concrete. It also enables a concrete deck to exhibit less wear and tear due to the pounding of tires and less cracking due to temperature fluctuations. The development of high performance concrete was aided by much research across the country, including research sponsored through SHRP. The Structures budget request will help realize similar advances through the development of techniques to enhance corrosion resistance in steel structures, to remove chlorides from contaminated concrete and protect steel reinforcement, and develop accelerated test methods for predicting the long-term performance of advanced composite materials.

The shared goal of the Safety and Motor Carrier research programs is to develop and evaluate technologies which can help close the gaps in ensuring the safety of our highways for the traveling public. The FY 1997 Safety research budget will provide continued support for the Interactive Highway Safety Design Model (IHSDM). The IHSDM will consist of a series of interactive computer programs that will enable roadway designers and design reviewers to assess the potential safety effects of specific geometric design decisions. The current plan is to develop the following six modules or sub-programs: an accident analysis module, a design consistency module, a vehicle dynamics module, a driver module, a traffic module and a policy review module. These modules will be developed so they can be linked to commercially available computer aided design (CAD) packages. In FY 1997, emphasis is on completing the development of the design consistency model, determining the highway roadway recovery area distance relationship, and validating the encroachment frequency rate for vehicles operating on the highway. Other major Safety research initiatives which will begin are: establishing a public-private consortium to assess the use of ultraviolet and florescent technology for improving nighttime driving visibility, developing the second edition of the Human Factors Older Driver Handbook used by highway designers, and development of pedestrian and bicyclist transportation guide with recommend revision to current highway design and operational policies, standards and ordinances.

The Motor Carrier research program reflects the growing public demand for trucks and buses to operated more safely on our Nation's highways. The Motor Carrier budget request will support activities involving commercial driver human factors, safety and performance technologies, information analysis, and regulatory reform. Research will be initiated to develop and analyze effective measures of commercial motor vehicle driver training standards, analyze the safety implications of alternative hours-of-service scenarios, determine the prevalence and impacts of overloaded tires on trucks and buses, improve the validity and reliability of carrier information in the motor carrier Census File update of MCMIS, and support the third phase of the Zero Base Regulatory Review (including supporting analysis for the development of proposed changes to the Federal Motor Carrier Safety Regulations).

Similarly the research program for environment will close the gap in the availability of analytical tools needed to address the human impacts on the environment and the development of integrated assessments and other analytical tools for effective policy formulation. The FHWA's environmental research program will contribute to a more efficient environmental and project development program and to an enhanced environment through the development of (1) improved tools for assessing highway impacts on air quality, wetlands, hazardous waste sites, water quality, etc.; (2) more effective and innovative avoidance, detection, mitigation, and enhancement techniques; and (3) environmental expertise within Federal, State and local transportation agencies. The budget request will enable research to be initiated to examine the emissions impacts of alternative fuels; the impacts on the transportation program, and the additional control strategies that are necessary, resulting from new and tighter national ambient air quality standards for ozone and small particulate matter; and mitigation strategies for reducing emissions from heavy duty diesel engines in trucks and buses.

Question. Please submit for the record accounting on a major project level exactly how the Section 6005 funds were allocated during FY 1996 and your plans for allocation during FY 1997.

Answer. Allocation of Section 6005 funds for fiscal year 1996 was made by the Research and Technology Executive Board (RTEB) at their January 1996 meeting. The process involved input from each of the Research and Technology Coordinating Group (RTCG) chairs. Project selection was based upon meeting the overall objectives of Section 6005. The attached table shows the distribution of the $41 million to the various offices by RTCGs and other programs. While the bulk of the $27.64 million rescission in fiscal year 1995 came from the designated technologies (heated bridges), it was decided that research and technology projects delayed or postponed because of the rescission would be made whole. This is the "Rescis Rtn" item at the top of the table. It did not apply to the designated technologies. Also attached is a listing of the major program areas approved for funding. Preliminary allocation of $16.4 million of Section 6005 funds for fiscal year 1997 was made by the RTEB on May 15, 1996. The allocation sustains the commitment to support the Priority Technologies Program as well as other ongoing programs as listed below:

- Priority Technologies Program, $3 million
- TRANSIMS, $2 million
- Advanced Materials, $2 million
- WesTrak, $2 million
- International Scanning/Borders, $1 million
- Safety, $6.4 million (same as FY 1996 Congressional Earmark amount)

FY 96 ISTEA Section 6005 Funds Distribution by Office and Appropriation

Appropriation Codes		X373					X387 HBT	X393 TBO	X394 AWM
Total Approved		HRD	HST	HPD	HPL	HMT	HST	HST	HST
Rescis Rtn	7.165	1.310	4.059	0.236	0.896	0.664	0.000	0.000	0.000
HITEC	2.000		2.000						
Designated	8.500						4.000	2.500	2.000
International	1.000				1.000				
NHI	2.000	2.000							
PTP	3.000		3.000						
Winter Maint	0.535		0.535						
Safety	6.400	4.000	2.400						
Pavements	2.000	2.000							
Structures	2.000		2.000						
Policy	1.200				1.200				
Planning/Env.	2.400			2.400					
Motor Carrier	1.300					1.300			
OTA Support	0.300		0.300						
Cost Alloc	0.600				0.600				
Adv Res	0.600	0.600							
Total	41.000	9.910	14.294	0.236	3.696	1.964	4.000	2.500	2.000

Question. The Local Technical Assistance Program (LTAP) is basically an outreach program to help local governments. How will these centers contribute to the dissemination of increase information on highway safety? How did you convince the LTAP centers to undertake this mission?

Answer. Through its outreach program of 57 technology transfer centers, the LTAP targets technical assistance for some 38,000 local cities, towns, counties, and American Indian tribal governments. In 1993, a comprehensive national study documented that 43 percent of these customers was being reached through training and other direct assistance activities with the resources available. Another 17 percent were being served through newsletters and distribution of technical materials for a total of 60 percent. These numbers decreased in 1994 and went back up to about the same levels, perhaps a slight increase, in 1995 and 1996.

The technology transfer centers have been the key to disseminating information on highway safety to these customers since the first ten centers were established in 1982, and will continue to be a key resource in delivering technical assistance in this area as long as funding is available. The centers are led in this area through the preparation of technical assistance materials at the national level including training courses, manuals, handbooks, and other tools appropriate to the task and customers' needs. These materials are provided to the centers for tailoring and delivery to the customer. In some instances products are provided for demonstration purposes. Some examples of these activities are mentioned later.

Regarding the language in the 1996 Appropriations Act specific to this subject, the centers have been made aware of the Congressional interest in expanding their role in disseminating information on highway safety and an increased relationship with the National Highway Traffic Safety Administration (NHTSA). This was done through a newsletter used to keep the centers up to date on Program activities. In addition, a joint FHWA/NHTSA memorandum is being prepared for the LTAP community and NHTSA is identifying new assistance materials that may be provided to the centers for further dissemination to local and tribal governments with particular emphasis on the Safe Communities Program.

As new safety related materials for their customers become available for the centers' use, there will be a gradual shift in their deliverables. Every center already features training on proper flagman procedures and work zone traffic control. Many of the centers are the certifying agencies for flagman training in their respective states. Training in highway safety is one of the "core courses" for those centers that have established "Roads Scholar" programs.

New LTAP products that have been recently developed are being used and others that are under development in the area of highway safety include:

- A Risk Management Program Manual for Use by Local Transportation Agencies [*Pennsylvania State University*]—Estimated completion: May 31, 1996.
- Training Material on the Role of Accident Investigation in Risk Management—Combined with above work with *Pennsylvania State University*. A laminated field pocket guide has been produced and is undergoing evaluation.
- Traffic Safety Assessment Course and Field Guide for Local Officials [*Kansas State University*]—Estimated completion: December 1996.
- Local Agency Work Zone Traffic Control [*North Carolina Agency for Public Teleconferencing - NHI*]-This project is focused on the update of a National Highway institute (NHI) Course and

features an updated videotape that includes the recent changes in the *Manual on Uniform Traffic Control Devices.*

- A Training Videotape of Traffic Sign Installation, Hardware, and Inspection [*Kansas State University*] - This videotape has been completed.
- Demonstration of Portable Retroreflectivity Measurement Devices for Signs and Pavement Markings for Local Municipalities and Counties [*University of Nebraska*] - Estimated completion: end of July 1996.
- Compact Disc-Interactive (CD-I) Modules Illustrating Typical Layouts for Traffic Control Devices in Short-Term and Moving Maintenance and Construction Work Zones - Estimated award date: on or before October 30, 1996.
- Videotape and Training Manual for Implementing Traffic Calming Techniques in Cities, Towns, and Neighborhoods - Estimated award date: on or before October 30, 1996. Many centers have already begun training in this area using currently available resources.

In 1992 there were 647 work zone fatalities in the United States. The latest figure just released by the National Highway Traffic Safety Administration reports 833 deaths in work zones during 1994, an increase of 186 or 29 percent in two years. This follows several years of keeping the total fatalities about the same or actually reducing the figure from 1990 to 1992. There have been over 10,000 work zone fatalities in the last 15 years.

LTAP centers have been a key vehicle for distributing information and technical demonstration of 18 Strategic Highway Research Program products of direct interest and benefit to local transportation agency personnel. Among these products are work zone traffic control devices and work zone intrusion alarms. These were provided to centers to demonstrate locally the advantages of using these devices.

LTAP continues to partner with other agencies and FHWA program offices to provide increased dissemination of highway safety information and training.

- From 1993-1995, LTAP distributed 160 compact disc-interactive (CD-I) players and discs to the centers to provide local transportation agencies with the jointly developed FHWA/AASHTO CD-I on Work Zone Traffic Control and the National Governors' Association's CD-I on Truck and Bus Data Elements. Locally, the training was very successful because of the advantages in flexibility in delivery and that computer skills are not needed to receive the benefits of the training.

- OTA's LTAP is working jointly with FHWA's Office of Highway Safety in updating the NHI course on Work Zone Traffic Control Inspector's Training. Train-the-trainer workshops for state and local transportation agency personnel will start this summer.
- Completion of an LTAP Strategic Plan for beyond the year 2000 (to be completed before the end of July 1996) included NHTSA and AASHTO representation on the Strategic Planning Steering Committee. Many of our LTAP centers have been involved directly at the local level with Governor's Highway Safety Representatives and the Section 402 program. LTAP will be issuing a joint FHWA/NHTSA memorandum this summer on increased joint activities in the area of highway safety and NHTSA's initiative on Safe Communities Program in response to Senate Report No. 104-126 "Department of Transportation and Related Agencies Appropriations Bill, 1996" [page 137].

Finally, convincing the LTAP centers to undertake this mission has been the easiest part. Each LTAP center has an advisory board or working group composed of local transportation agency personnel and locally elected officials. They make their needs known to the center and request for information on highway safety issues and training has always been a major request. The LTAP centers are committed to meeting their needs in this area.

Question. Please break down the specific uses of ISTEA and GOE funds spent on LTAP for FY 1996 and planned for FY 1997. In your response be certain to explain the purpose of major projects in support of LTPP.

Answer. [Note: "LTPP" is interpreted as "LTAP" since all ISTEA section 6004 and GOE funds identified for that purpose are spent on LTAP]

As can be seen in the information and tables that follow, the bulk of the ISTEA funds are provided for support of operations of the 57 LTAP centers:

FUNDING OF LTAP CENTERS - FY 1996 and FY 1997			
Fiscal Year	Base Amount = $110,000 Using ISTEA Funds	Supplement = IP&CDP Using GOE Funds	TOTAL
1996	$5,505,000	$1,008,000	$6,513,000
1997	$5,550,000	$1,008,000	$6,558,000

The base amount shown in the table is for the 51 LTAP centers, which are eligible to receive up to $110,000 each from ISTEA funds (a total of $5,610,000); however, some States, in some years, do not request the full $110,000 available, which is the reason this figure is lower. Supplemental funds are made available based on the number of Incorporated Places and Census Designated Places (IP&CDP) as identified in the 1990 Census; there are 622 such places in all. A maximum amount of $200,000 was made available to any one center, primarily to provide LTAP services attuned to the needs of urban areas with populations between 50,000 and 1 million. In FY 1996, $2,000 per IP&CDP was made available. In FY 1997, $2,000 per IP&CDP will again be made available. Initially, $4,000 per IP&CDP was made available, but as available GOE funds fluctuated from year-to-year, adjustments were made.

FUNDING OF INDIAN LTAP CENTERS - FY 1996 and FY 1997			
Center Name	BIA Funding	FHWA Funding	Total Funding
Indian LTAP Center at Colorado State University @ *Fort Collins*	$100,000	$100,000	$200,000
Indian LTAP Center at Michigan Technological University @ *Houghton*	$100,000	$100,000	$200,000
Indian LTAP Center at Montana State University @ *Bozeman*	$100,000	$100,000	$200,000
Indian LTAP Center at Eastern Washington University @ *Cheney*	$100,000	$100,000	$200,000
Indian LTAP Center at Oklahoma State University @ *Stillwater*	$100,000	$100,000	$200,000
Indian LTAP Center at D-Q University @ *Davis*	$ 75,000	$ 75,000	$150,000
Alaska LTAP Center serving Alaskan Tribal Governments	$ 25,000	$ 25,000	$ 50,000
TOTALS	$600,000	$600,000	$1,200,000

The first year's operation of each Indian LTAP center is funded at $150,000, which is the case for D-Q University at Davis this year. This is increased to $200,000 in years 2 to 5 of the cooperative agreement if the first year is judged successful. In other words, final totals in FY 1997 would read $625,000, $625,000 and $1,225,000 in each column, respectively.

Expenditure of FY 1996 Funds:

Of the $6,000,000 in ISTEA funds available in FY 1996, $5,505,000 was provided for the operations of 51 State LTAP centers, leaving a balance of $495,000 for other LTAP-related activities.

Of the $2,866,000 in GOE funds available in FY 1996, $1,608,000 was provided for operating the six Indian LTAP centers and the Alaska State LTAP center for Alaskan tribes and providing the supplement, leaving a balance of $1,258,000 for other LTAP-related activities.

The remaining $1,708,000 ISTEA and GOE funds for LTAP-related activities was used in the areas of contracts, contractor support services, and other costs and are broken out in the following tables.

FY 1996—Contracts	
Type of Contract	**Amount**
Funding for 2 LTAP products to be awarded late FY 1996 on a split-funded basis:	
• Tourism and Recreation Travel Technical Assistance Package	$ 45,000
• Erosion and Sediment Control Workshops	$ 80,000
Funding for Tribal LTAP products identified by the LTAP, the Bureau of Indian Affairs, and the Intertribal Transportation Association for American Indian tribal governments with emphasis on needs identified by U.S. Trust Territories and Alaska Natives:	
• Funds for Alaska LTAP to serve Alaskan Tribes	$25,000
Funding for 6 contracts for LTAP products initiated in FY 1995 on a split-funded basis:	
• A Videotape and Informational Brochure on the Benefits of Investing in Training for Road Maintenance Crews	$13,037
• A Training Videotape of Traffic Sign Installation, Hardware, and Inspection and a Traffic Safety Assessment Course and Field Guide for Local Officials	$14,631
• A Compact Disc - Interactive (CD-I) Training Modules on Motor Grader Operations and a Utility Cuts Training Videotape and Field Guide for Local Transportation Agency Personnel	$61,700
• Update of MicroPAVER (PMS) in cooperation with the U.S. Army Corps of Engineers for public works agencies	$100,000
• Environmental LTAP - Training Aids for Decreasing Hazardous Materials Liability for Public Works Agencies - A Recycling Applications Manual - Understanding Wetland Requirements Course and Videotapes	$463,346
• A Risk Management Program Manual for Use by Local Transportation Agencies and A Module "The Role of Accident Investigations on Risk Management"	$7,224
• Train-the-Trainer Courses for T^2 Center Managers and for Road Scholar Programs	$38,787
• A Culvert Management System for Local Transportation Agencies; a Videotape on Local Road Drainage; a Videotape on Vehicle Fleet Management; and a Videotape on Snow Removal Attachments for Motor Grader Operators.	$147,528
• A Compact Disc - Interactive (CD-I) Training Modules on Successful Supervision for Local Road Supervisors and Work Crew Foremen.	$66,732
Total	**$1,062,985**

FY 1996—Contractor Support Services	
LTAP Support Contractor - Technautics, Inc.	$350,000
LTAP Technology Transfer Clearinghouse (Partnership)	$225,000
NACE Institutional Membership (Partnership)	$8,250
NACE Annual Meeting Support (Partnership)	$5,000
Transportation Officials Division of ARTBA Annual Meeting Support (Partnership)	$5,000
APWA Institutional Membership (Partnership)	$7,250
Eastern Tribal Transportation Conference	$100,000

NICET Certification Training - Federal Lands Highway Division Technicians	$5,000
Implementation of the LTAP Strategic Plan	$50,000
County Road Advisors' Meetings - FHWA Regional Support	$7,500
Production of LTAP Product Deliverables	$65,000
LTAP Annual Meeting Support	$12,000
Total	$907,500

National Rural Initiative Program—This program falls under the FY 1996, Other Costs category, for which $500,000 was provided. For decades, government has tried to address rural needs. But the patchwork of policies and programs weren't making a significant difference. A national rural initiative was launched in 1990 to bring together federal departments having rural programs; national associations representing rural interests; and public non-profit agencies and private sector businesses to collaborate in redefining government goals and programs for development of the rural area. The U.S. Department of Agriculture was the lead agency for bringing the coalition together although this arrangement since evolved into the National Rural Development Council (NRDC) of the White House National Programs Office. Besides Agriculture, the Departments of Commerce, Defense, Education, Health and Human Services, Housing and Urban Development, the Interior, Labor, Transportation, and the Treasury are participants in the National Partnership on Rural America.

The initiative has been successful in creating State Rural Development Councils (SDRC) in all states having major rural constituencies. The councils bring a focus of federal programs within each state to address rural needs and concerns; not only about economic development but quality of life issues as well. At the national level, the councils appoint members to the NRDC to participate with representatives of federal departments, national associations, and public non-profit agencies and private sector businesses.

Expenditure of FY 1997 Funds:

Of the $6,000,000 in ISTEA funds requested in FY 1997, $5,550,000 would be provided for operations of 51 state LTAP centers, leaving a balance of $450,000 for other LTAP-related activities.

Of the $4,100,000 in GOE funds requested for FY 1997, $1,633,000 would be provided for operating the six Indian LTAP centers and the Alaska state LTAP center for Alaskan tribes and supplemental funding for qualifying State centers, leaving a balance of $2,467,000 for other LTAP-related activities.

The remaining $2,917,000 ISTEA and GOE funds for LTAP-related activities is planned for use in the areas of contracts, contractor support services, and other costs and are broken out in the following tables.

FY 1997—Contracts*	
Type of Contract	**Amount**
Funding for five LTAP products to be awarded in early FY 1997:	
• Handbook on Traffic Counting Needs and Requirements for Local	$200,000
Transportation Agencies	$100,000
• Parking Lot Layout Training Course and Reference Manual	
• Compact Disc-Interactive Modules Illustrating Typical Layouts for Traffic	$352,000
Control Devices in Short-Term and Moving Maintenance Work Zones	$250,000 $100,000
• Videotape and Training Manual for Implementing Traffic Calming	
Techniques in Cities, Towns, and Neighborhoods	
• Videotape and Reference Manual on Testing Gravel Roads	
Funding for 2 LTAP products initiated in FY 1996 on a split-funded basis:	$200,000
• Tourism and Recreation Travel Technical Assistance Package	$160,000
• Erosion and Sediment Control Workshops	
Funding for Tribal LTAP products identified by the LTAP, the Bureau of Indian Affairs, and the Intertribal Transportation Association for American Indian tribal governments with emphasis on needs identified by U.S. Trust Territories and Alaska Natives:	
• Funds for Alaska LTAP to serve Alaskan Tribes	$50,000
• Funds for Boundary Survey training guidelines for tribal governments	$12,500 $75,000
• Eastern Band of Cherokee—Project Prioritization Model	
Funding for Joint Work with NHTSA on Safe Communities Program	$67,500
Total	**$1,567,000**

FY 1997—Contractor Support Services	
LTAP Support Contractor - Technautics, Inc.	$350,000
LTAP Technology Transfer Clearinghouse	$235,000
NACE Institutional Membership (Partnership)	$8,250
NACE Annual Meeting Support	$5,000
Transportation Officials Division of ARTBA Annual Meeting Support	$5,000
APWA Institutional Membership (Partnership)	$7,250
Eastern Tribal Transportation Conference	$100,000
NICET Certification Training	$5,000

Implementation of the LTAP Strategic Plan	$50,000
County Road Advisors' Meetings - FHWA Regional Support	$7,500
Production of LTAP Product Deliverables	$65,000
LTAP Annual Meeting Support	$12,000
Total	$850,000

National Rural Initiative Program—This program falls under the FY 1997, Other Costs category. As in FY 1996, $500,000 will be provided in fiscal year 1997.

Question. How did the White House National Science and Technology Council's recommendations influence the FY 1997 research and technology budget request?

Answer. The National Science and Technology Council's recommendations concerned two specific thrusts—high-performance materials and diagnostics—which combines nondestructive evaluation, materials science, and computational structural modeling. Aside from coordinating our research in these areas through the NSTC Subcommittee on Physical Infrastructure Renewal, FHWA also coordinates with other Federal agencies, primarily the National Institute of Standards and Technology and the National Science Foundation.

The FHWA is focusing its structures R&D on (1) developing technology used to inspect nondestructively and quantitatively the condition of infrastructure in order to rapidly define structural inadequacies, and (2) developing and deploying the use of high performance materials (concrete, steel, advanced composites, etc.) to repair the deficiencies more rapidly and efficiently. The NSTC's recommendation for diagnostics matched FHWA's theme of conducting research to "find it and fix it;" the "it" being the deficiencies, and concentrated our efforts in this area.

This emphasis on diagnostics research supported by the NSTC is reflected in the $10 million increase in the request for structures R&D in FY 1997. The major features of this increase include the application of fiber optics and other embeddable sensors in bridges to monitor traffic loadings and the deterioration of structural performance. Also included is a program to improve reference test methods for NDE validation. A third area is NDT for materials characterization. As opposed to physical flaw detection, this type of NDT measures changes in materials properties such as the aging of steel by fatigue or corrosion in reinforced concrete. Finally, there is a program to apply advanced computer modeling methods developed in the aerospace industry to predict the response of bridge members to variable loadings from traffic and environmental factors such as wind gusts. This will provide more effective designs for new structures, and better prediction of deterioration and fatigue life in existing structures.

The NSTC recommendations also are reflected in the pavements R&D budget. The FY 1997 request includes $2.5 million for exploratory research in diagnostics paralleling the efforts in structures. An additional $1.5 million will support development of high-performance materials for pavements. The overall pavements R&D budget request for FY 1997 is $23.2 million, compared to $8.8 for FY 1996. In addition to the $4.0 million for NSTC-recommended research, the change reflects the incorporation of the Long Term Pavement Performance (LTPP) program, a separate $8.3-million line item in FY 1996, into the pavements R&D for FY 1997, including $1.0 million for LTPP analysis and $9.0 million for LTPP operations.

Question. What strategies are you now employing to increase the cost sharing or leveraging you now receive from the private sector for your technology transfer activities?

Answer. Funds are leveraged through both public and private sources. Most of this is done through in-kind services, shared costs, or equipment contributions. Activities funded with the budget of the Office of Technology Applications seek partnering opportunities which most appropriately fit the program need. We are opening discussions with industry and believe we can make additional progress in this area particularly through the joint funding of initiatives.

Question. How have you begun to respond to the Committee guidance in this area?

Answer. We have taken steps in a number of areas to leverage our program in line with the Committee's guidance:

- On major Demonstration Projects (such as DP-93, "Advanced Traffic Control Systems"), all the equipment displayed as part of that project is donated by the private sector.
- The industry is an integral part of many of our technology showcases (e.g., concrete admixtures); however, their participants pay their own expenses as well as the time associated with the showcases.
- States routinely provide engineering and traffic control support for test and evaluation projects administered within their

own states. Further, they contribute substantial time to the development of technology application projects.

- Our major effort to implement the Red Light Running Safety Campaign ("The Light is Red for a Reason, So Stop.") has brought it into more than 50 local communities. Federal "Seed" money provided to 32 communities to help with start-up coordination and the offer of technical assistance to others has been leveraged by the local communities into substantial resources that include radio and TV air time, donation of print ads and personal resources.

Question. Please describe the successes in the Priority Technologies Program.

Answer. The Priority Technologies Program (PTP) was initiated in fiscal year 1995 designed expressly to accelerate the deployment of new or innovative transportation technology by the successful testing and evaluation of technologies which have high potential for bringing real benefits to transportation users. The program is unique in that the FHWA field offices have had the lead in establishing and operating the program. A team comprised entirely of field personnel developed the guidelines under which the program operated in fiscal year 1995. PTP has gotten off to a good start with 32 projects initiated and all FHWA regions and the Federal Lands Highway Program Office participating. One of the prime selection criteria has been that the project involves public or private partnerships which leverage resources. Partnering has been achieved and many of the projects have teamed up to produce considerable leveraging. As an example, a project in Oregon on the implementation of LED for traffic signals has partners from FHWA, Oregon Technology Transfer Center, Oregon DOT, Idaho National Engineering Laboratory (DOE), two utility companies (Pacific Power and Idaho Power), General Electric and several local agencies.

Question. Please describe the challenges and difficulties associated with this investment.

Answer. As with any new activity, there are challenges and difficulties associated with PTP. Communication and making those in the field aware of the program and the opportunity for participation is of prime concern. The revised guidelines were officially distributed on January 25, 1996 to our field offices. This has been followed up by e-mails, personal contacts, and was discussed at a meeting of our field technology transfer coordinators in May. In addition, we are working on an Internet presence on the FHWA Technology Applications home page. We have also asked each of the regions to prepare a program assessment to provide feedback on their process and for suggestions for modification and improvement of the PTP efforts for future years. One of the challenges has been competition for funding of the many projects within the program. More than 100 projects were initially considered for inclusion in the fiscal year 1995 program. It is anticipated that the level of interest will remain high this fiscal year and be reflected in the number of projects and the increased partnering. Funding levels for PTP have been increased from our initial amount of $2.5 million in fiscal year 1995 to $3 million in fiscal year 1996.

Question. In House Report 104-177, the Committee recommended $1,000,000 for work on high performance concrete as proposed by the NSTC. What is the status of this project and what progress has been made? What is the total amount being spent on this technology during FY 1996 and what amount is requested for FY 1997? Please specify both ISTEA and GOE funds in your response.

Answer. Research is underway using advanced materials characterization techniques including neutron scattering and scanning acoustics to develop a better understanding of how the modifications to increase the strength of concrete affect its durability. This includes resistance to frost, sulfates and chlorides. The research will develop guidelines on the design and construction of rigid portland cement concrete pavements.

The FHWA plans to award a contract to investigate existing and new methods to evaluate the factors that control the quality of concrete pavement construction including the rheology, placability, workability, and finish-ability. The FHWA will develop guidelines for use by State highway agencies and construction contractors.

The FHWA also is conducting research on high performance concrete (HPC) under the structures R&D program. By the end of fiscal year 1996, FHWA will have six HPC bridges under design or construction. FHWA will continue to work with States over the next few years to construct and evaluate HPC bridges. In fiscal year 1997, FHWA plans to begin research on the use of concrete with ultimate strengths of 100 MPA and higher.

The FHWA expects to spend about $3 million ($1.8 million ISTEA, $1.2 million GOE) on HPC this year, and are requesting $4-5 million ($2.0 million ISTEA, $3.0 million GOE) for HPC in fiscal year 1997-roughly two-thirds in structures and one third in pavements.

Question. How are you promoting technology transfer of this advance?

Answer. The guidelines developed under FHWA research studies will enable transportation practitioners and construction contractors to readily use the results of high performance concrete (HPC) for pavements.

Most of FHWA's ongoing technology transfer activities are related to advancing the use of HPC for structures. HPC is concrete having enhanced durability and increased strength (increased concrete compressive and flexural capacities). Bridges can be built stronger with longer spans, fewer piers, and/or wider beam spacings. HPC offers a cost-effective means for improving the condition and performance of our deteriorating system. It can increase the service life of a bridge and reduce maintenance costs. It can reduce the cost of initial construction because bridges can be built stronger with longer spans, fewer piers, and/or wider beam spacing.

Two and a half years ago, the FHWA initiated an HPC Bridge Program to promote this innovative technology by establishing a cooperative agreement with the Texas Department of Transportation (Texas DOT) to build an HPC bridge project, the Louetta Road Overpass, and later another bridge in San Angelo, Texas. FHWA and Texas DOT hosted the first SHRP High Performance Concrete Bridge Showcase on March 25-27, 1996 in Houston, Texas. It was geared for practitioners such as State engineers, concrete fabricators, and construction contractors, and highlighted the two bridges under construction in Texas, and showcase this new technology.

The FHWA has also entered into partnerships with three other States (Virginia, Nebraska, and New Hampshire) to construct an HPC bridge in each State. Two of these bridges are under construction, and the other is under design. Several other States have expressed interest in forming similar agreements.

Question. Last year, the Committee recommended $3,000,000 for non-destructive evaluation technology as part of the structures R&D program. What is the status of this activity and what progress has been made? Where do you plan to locate any NDE testing facilities? How will you implement any testing or evaluation of any new NDE proprietary devices or methods that will involve substantial cost sharing with the private sector?

Answer. FHWA is advertising a request for proposals to select a consultant who, in cooperation with appropriate States, will use three bridges at yet to be determined sites for testing and evaluating nondestructive evaluation (NDE) technologies (hardware) in the field. The FHWA also will convert a portion of the TFHRC Structures Laboratory in McLean, Virginia, to conduct laboratory investigations and evaluations of new NDE technology. The FHWA will develop test specimens such as deck, girder, and substructure members, all having known typical representative flaws designed in specimens; the flaws will only be known to lab staff. FHWA will form agreements with NDE hardware suppliers to use the facility and demonstrate the capabilities of their equipment through the conduct of "blind" tests on the flawed specimens. Vendors who have invested significant resources in the development of proprietary devices will be afforded equal opportunity to demonstrate their capabilities. The FHWA will cost share with successful offerors in the development of new, proprietary NDE hardware.

Question. In Conference Report 104-286, the conferees urged the FHWA to work with the National Center for Physical Acoustics in its effort to apply acoustics to monitor traffic and/or pipeline maintenance. How will this be accomplished? What has been done?

Answer. FHWA and Congressional staff have discussed Congressional support for developing and verifying improved models to predict community noise. FHWA plans to release a new highway traffic prediction model later this spring. The model calculates noise levels using new acoustical algorithms, as well as newly-measured emission levels for five standard vehicle types, i.e., automobiles, medium trucks, heavy trucks, buses, and motorcycles. The model can be used to analyze (1) both constant-flow and interrupted-flow traffic, (2) attenuation due to rows of buildings and dense vegetation, (3) effects of parallel noise barriers, (4) results of multiple diffractions, and (5) noise contours.

FHWA staff recently met with Dr. Henry E. Bass, Director, National Center for Physical Acoustics affiliated with the University of Mississippi. The FHWA's environment R&D program currently is placing greater emphasis on air quality and wetlands, relative to noise; thus, there do not appear to be any immediate opportunities for the Center to assist FHWA in highway noise research. Based on Dr. Bass's description of the Center's capabilities and the sample papers and reprints which he provided FHWA, agency staff recommended that he contact other FHWA offices which may be able to use the Center's expertise in using various acoustic techniques to explore ground porosity and density conditions, stream bed load, water flow, nondestructive testing of items such as metal beams, and related areas to help provide answers to other highway problems other than noise definition, propagation, and control.

Question. Please cite some quantitative savings achieved by the States as a result of the applications of the technology advanced by your program.

Answer. A recent survey through which nine states reported on the benefits accruing as a result of technical change between 1984 and 1993 reports on the economic benefits in 12 technology areas. The nine States reported accumulated savings from the 12 technology areas during the 10 years of $2.72 billion in constant 1993 dollars. A comparison to the entire appropriated RD&T budgets for the same time frame yields a savings-to-cost ratio of 8 to 1. A benefits study of the Local Technical Assistance Program showed a more than $8.00 return for each Federal dollar invested.

Some more direct links to our program show that our Technology Applications Investment has Paid Off:

- Traffic Control Equipment and Software (DP-93) mobile laboratory has been used for 75 presentations, reaching 2,100 people.
- $72 million savings and a benefit-to-cost ratio of 200:1 in Northern Virginia.
- $35 million annual savings from signal retiming and signal equipment upgrades in California.

Superpave technology has the potential for millions of dollars in annual cost savings in the future.

Anti-icing and winter maintenance technology improvements and innovations have the potential for savings in direct cost of over $150 million annually.

Question. What are you doing to increase the partnering with non-traditional industry groups to bring new technologies and materials into your program?

Answer. We are strengthening partnerships with industry in a variety of ways:

- For Traffic Control Equipment and Software, DP-93, all the equipment displayed as part of that project is donated by the private sector.
- Industry is an integral part of many of our technology showcases.
- States routinely provide engineering and traffic control support for test and evaluation projects administered within their own States.
- Developed a pavement markings retroreflectivity measurement device in partnership with industry through the Small Business Innovation Research Program.

Question. What concerns does FHWA have about the ability of States to use FHWA-generated research and new technologies that are ready to be deployed? How are these concerns being addressed?

Answer. FHWA has some concerns about the gap that exists in the transportation community between the state-the-art and the state-of-the-practice in all areas of technology including pavements, structures, safety and ITS. It is growing with the loss of expertise through the retirement of Interstate-era experts, the downsizing of transportation entities, and the need for new skills and expertise (telecommunications, new materials, people-machine interface, etc). It is compounded by institutional barriers and a risk-aversion culture.

Closing the gap will demand that we extend the traditional State-Federal partnership and new partnerships formed under ISTEA to create new public-private partnerships. Private suppliers of transportation goods, services, and technology should have a place at the table in deciding how to build longer-lasting, safer, and smarter highways. The public and private sector will need to share in the risk of embracing new technology and innovation. Although Federal funds may be used to help defer the initial costs, FHWA also should take the lead in removing regulatory, programmatic and operational barriers to innovation.

Four elements will directly contribute to "closing the technology gap" between where we are today and what is possible.

- **Deploying Innovation**—Ensure that advanced technologies and innovations are "put on the ground" and mainstreamed into the normal Federal-aid program.

- **Advancing Specific Technology Goals**—Establish a national effort to accelerate the implementation of a small group of key technologies, fully deploying innovations through the Federal-aid program.
- **Building the Capacity for Innovation**—Advance innovative technology through education, training and technical assistance.
- **Leading the Development of New Technology**—"Closing the gap" means pushing the state-of-the-practice to the state-of-the-art and especially beyond.

Question. What were the total costs for the Westrack facility? Did the pavement industry contribute to this facility? Hard or soft contributions? How did you approach the private sector for any contributions to this facility?

Answer. The total cost of the Westrack research contract is approximately $11.9 million, including (1) $2.5 million for preliminary planning, track and experiment design, equipment acquisition, and autonomous vehicle development; (2) $5.1 million for track construction; (3) $3.6 million for track operation (loading & performance testing); and $0.7 million for data analysis and reporting.

The pavement industry, i.e., materials producers and construction contractors, did not contribute toward the above total, but representatives did participate in an advisory panel which provided guidance on the experiment plan, design, and construction. The Westrack program has benefitted from participation by truck and truck component manufacturers; vehicles and parts have been supplied either free or at significantly reduced costs, resulting in net savings to FHWA of $440,000. The FHWA's research contractor approached the manufacturers directly in seeking this support, and is providing them with performance information on their products in exchange.

Although the team of private companies and universities that is conducting the current study is seeking other uses for the facility in the future, FHWA views Westrack as a single 4-year research study. The track site reverts to the host company, the Nevada Automotive Test Center, when this study is completed.

Question. How are you improving communication about the Long Term Pavement Performance Program (LTPP) to maintain State support of the program? Is there any question of continuing State support?

Answer. The FHWA does have a concern about continuing State support for LTPP and has taken a number of steps to address the situation. With few exceptions the State top management that planned LTPP in the early and mid 1980's and had a strong sense of ownership for the program are no longer in office. There is a need to educate the current State top management on the program's purpose and products. To do this, FHWA has increased its LTPP communication efforts. These efforts include several publications, numerous presentations and exhibits, sponsorship of a national product preview meeting, customer surveys, and out reach to AASHTO and TRB committees. In the last year FHWA has published the LTPP Program Roadmap, the 1996 Product Preview, a biennial LTPP Status Report--these documents were distributed in hard copy and on the FHWA home page--and several promotional brochures. The FHWA has produced two LTPP displays that describe the program and products for use at regional and national technical meetings. As a result of these communication efforts and other activities, FHWA believes that a renewed interest and commitment in LTPP is growing among the States. The FHWA intends to maintain a steady information flow and active communication with the States regarding LTPP.

Question. Please breakdown the specific uses of ISTEA and GOE funds spent on LTPP for FY 1996 and planned for FY 1997. In your response be certain to explain the purpose of major projects in support of LTPP and specify associated amounts.

Answer. In FY 1996, the FHWA plans to spend $5.3 million of ISTEA funds to support four regional data collection contracts, compare to $6.0 million of ISTEA funds for FY 1997. In FY 1996, the FHWA plans to spend $0.4 million of GOE funds and $1.2 million of ISTEA funds for photographic pavement distress survey and data reduction, compared to $0.7 million of GOE funds for FY 1997. In FY 1996, the FHWA plans to spend $0.2 million of GOE funds and $0.2 million of ISTEA funds for incentives to States for the SPS???, compared to $0.2 million of GOE funds for FY 1997. In FY 1996, the FHWA plans to spend $2.1 million of GOE funds for LTPP data analysis, compared to $1.6 million of GOE funds for FY 1997. In FY 1996, the FHWA plans to spend $0.9 million of GOE funds for a cooperative agreement with TRB for the LTPP committee activities, compared to $0.9 million of GOE funds for FY 1997. In FY 1996, the FHWA plans to spend $1.6 million of GOE funds for pavement and traffic technical assistance, compared to $3.1 million of GOE funds for FY 1997. In FY 1996, the FHWA plans to spend $0.8 million of GOE funds for materials testing, compared to $0.8 million of GOE funds for FY 1997. In FY 1996, the FHWA plans to spend $0.1 million of GOE funds and $0.7 million of ISTEA funds for continuation of the SHRP field experiments in pavement maintenance and structures compared to $0.2 million of GOE funds for FY 1997. In FY 1996, $0.8 million of GOE funds will be used for FHWA's R&T technical support activities, compared to $1.0 million of GOE funds for FY 1997.

Question. What are you doing to reestablish a stronger partnership with the States and the highway industry regarding the LTPP?

Answer. The FHWA with the cooperation of AASHTO recently conducted a customer survey with eight State Chief Engineers on several aspects of the LTPP program and the desired products. The FHWA is considering the survey findings in the operational decisions for the LTPP program. The sense of partnership is maintained with AASHTO through the presentations and discussions at the Task Force on SHRP Implementation and LTPP, the Joint Task Force on Pavements and the Subcommittee on Materials. In March, FHWA, American Association of State Highway and Transportation Officials (AASTHO), Transportation Research Board (TRB), American Concrete Pavement Association (ACPA), National Asphalt Pavement Association (NAPA), National Stone Association (NSA), American Trucking Association (ATA) and Canadian Strategic Highway Research Program sponsored a conference entitled Improving Pavements with LTPP: Products for Today and Tomorrow. The conference was attended by 200 individuals from the States--top management and technical staff--industry, academia and international attendees. The conference report is being produced by TRB and will be available this fall. In cooperation with TRB, a new advisory committee structure has been established for LTPP. This structure includes a top management committee with State, industry, academia and international representation and three technical level committees with similar representation. The TRB committee structure is another means that FHWA uses to ensure a strong LTPP partnership.

Question. Did the pavement performance advisory committee recommend that FHWA make it a priority to create and activate a mechanism for LTPP technology transfer, as well as to provide on-call technical assistance in using the relevant database? If so, what have you done to respond to this and other recommendations of this advisory committee?

Answer. Yes, the pavement performance advisory committee did make such a recommendation and FHWA has taken several positive steps in this area. In the operation of the database, FHWA offers full-time customer service representative to fill the requests for LTPP data, and assistance in the use of the data. The FHWA has recently formed an LTPP Implementation Team, staffed with representatives from our Regional Offices, who will be developing implementation plans for the LTPP products. Among the implementation activities that the team will be evaluating include a CD ROM version of the LTPP database and training in the use of the CD ROM and data analysis. The FHWA anticipates that the team will be recommending more implementation activities than current funding will support. The technology transfer activities recommended by the implementation team will be funded with the SHRP implementation funds provided in Section 6001 of ISTEA. The FHWA has given full consideration to all of the advisory committee's recommendations in the management of the LTPP program.

Question. What is the cost effectiveness of the Department's investment and FHWA's contribution to the University Transportation Centers (UTC) program? Is the return worth the investment? Is it truly a partnership? What are the contributions of this investment to FHWA's highway research program? How are you ensuring that the research conducted under the UTC program is closely integrated with other FHWA research and development activities?

Answer. The UTC program is cost effective in attracting outstanding students to careers in transportation. This return alone makes it worth the investment. The UTC program is a unique complement to FHWA's highway research program as it recognizes the education and training of the future leaders in transportation as a key element of sustaining a healthy transportation system for our nation's future.

The program is a partnership as the UTC's are working closely with State transportation agencies, local transit providers, and private firms across the country in developing the projects and sharing the cost of the projects. The UTC program has made contributions to the highway research program in the areas of pavement testing, timber bridges, road signs, and retaining walls using recycled materials. FHWA staff participate in the DOT annual reviews of the centers where the research projects are discussed.

It would be difficult to integrate the UTC Program more fully into the FHWA research program without making fundamental changes in the Program. The current legislation provides that the program funds will be matched 50-50 with non-Federal funds. The provider of the matching funds has a significant voice in each Center's research program. This matching requirement has fostered a closer relationship between the universities in the program and the providers of the matching funds (which might be a State DOT, a local or regional transportation agency or a private company). The content of each Center's research program is determined by the Center itself in collaboration with its matching partners. Further integration with the FHWA research program, as well as the FTA program, would require a complete change in requirements, including FHWA involvement in the selection of research projects. It would also require authority to waive the matching requirements to accomplish high priority work deemed to be in the national interest.

Question. Is there any action the Committee could take to help FHWA increase the value of the Federal expenditures to the University Transportation Centers?

Answer. At present the FHWA lacks the authority to make non-competitive grants to the UTC's for projects which would be mutually beneficial. It would improve the partnerships between FHWA and the UTC's if the Department of Transportation had some discretion in this area.

Question. How do you maximize return of FHWA's investment or involvement in the UTC and the SBIR programs?

Answer. The SBIR program has three phases. Phase I is the conduct of feasibility or theoretical research and development. Phase II is the principle research or research and development effort and Phase III is to pursue the commercial applications of the research funded in the previous phases. Phase III, by law, can not be funded with SBIR funds.

The FHWA has taken a number of steps to increase the potential for small businesses to succeed in the SBIR program. Rather then use a general problem statement in the Phase I solicitation the FHWA provides specific problems. Thus, the successful solution of the project will result in a product with commercial potential. As a result of this approach a majority of our Phase I projects advance to Phase II.

Upon initiation of a Phase I or II contract, the appropriate FHWA technical office assigns a Contracting Officer's Technical Representative (COTR) to the contract. The COTR is responsible for monitoring the progress of the work and providing technical assistance and guidance to the small business. When appropriate, FHWA facilities are made available for testing and evaluating the product.

Successful Phase II products are promoted in the same manner as products from other FHWA research programs. The appropriate technology transfer method (training, demonstration, etc.) is determined and the steps to implement the technology transfer activities are undertaken. For example, a mobile retroreflectometer for measuring the retroreflectivity of pavement markings was developed under the SBIR program. The FHWA Office of Technology Applications has purchased three mobile reflectometers and demonstrations are being performed nationwide.

The FHWA formulates problem statements included in SBIR solicitation for bidders and provides direct technical oversight over the SBIR projects on highway transportation. By contrast, the UTC's develop and manage their research programs independently, using the Council of UTC's as a forum for sharing information on research plans and results, thereby avoiding duplication. The typical UTC will have several participating Universities, and rely on contributions from private and public entities. The FHWA does not direct the research agenda or provide technical oversight. Thus, the FHWA's influence is one of a partner with other contributor's at the table; the UTC's must forge a consensus and balance competing demands. The UTC program is an effective forum for university research and attracts outstanding students to careers in transportation.

OFFICE OF HIGHWAY SAFETY

Question. I understand that your Red Light Running campaign has been well received by the States. Are you requesting FY 1997 funds to continue this activity? If so, why? Isn't this Federal activity beyond the "seed" stage?

Answer. The FHWA is not requesting FY 1997 funds to continue the National campaign against Red Light Running (RLR). This successful highway safety outreach activity was designed under the "seed fund" construct, with grants awarded to 32 communities, in addition to technical assistance and a complete set of RLR campaign materials. These comprehensive public information and education materials were provided to all RLR grant applicants and to any interested communities. The materials include a wide array of public service announcements in video, audio and print formats; a complete RLR Strategic Planning Guide with information on fund raising, coalition building and working with law enforcement; and a 10 minute introductory video describing the safety implications of red light running.

While we will not be providing additional funds for RLR, FHWA will be very active, especially through our field offices, in encouraging, States and localities to implement such campaigns. This program can be an important element of the Corridor/Community Traffic Safety Programs as well as the overall Safe Communities initiative.

Question. For FY 1996 and expected for FY 1997, how much money are you spending on your highway safety outreach activities? From which account will these monies be derived? Please provide exhaustive detail on a project by project basis how you intend to use these monies.

Answer. In FY 1996, nearly $1.2 million of the Office of Technology Application's (OTA) government operating expense funds were dedicated to highway safety outreach activities. These included: $638,000 for the expanded RLR campaign, $250,000 for developing a Work Zone Safety campaign, $109,000 to develop a marketing plan for Community-Based Pedestrian Safety Projects, $100,000 to develop public information materials for a Rail-Highway Crossing Safety Action Plan task, and $91,000 to supplement the Safety Kiosk and *Read Your Road* contracts.

In FY 1997, we estimate $1.1 million will be dedicated for highway safety outreach activities as follows: $600,000 to implement Work Zone Safety and Rail-Highway Grade Crossing campaigns, $200,000 for a joint Pedestrian Safety initiative with NHTSA, and $300,000 to explore new communications techniques as a means of enhancing safety partnerships.

Question. What are the key components of your Highway Safety Communications Plan? What progress have you made in implementing it?

Answer. The preliminary Highway Safety Communications Plan has four key objectives: to increase motorist awareness of highway safety issues, underscore FHWA's commitment to highway safety, unify FHWA Headquarters and field offices around single safety initiatives that are relevant nationwide, and develop an umbrella campaign that would provide a unified safety theme under which various safety outreach activities can be implemented.

At this point, all but the last objective have been achieved. The FHWA's recent implementation of the RLR campaign, the completion of the *Read Your Road* highway user's manual, and the Safety Kiosk have contributed to motorist awareness of roadway-related safety issues and underscored safety as a top priority for FHWA. Planned highway safety outreach topics for FY 1997 include field-supported initiatives on work zone safety, pedestrian safety, and rail-highway grade crossing safety. Funds that had been planned for developing the umbrella campaign have been allocated to securing safety partners to assist in marketing *Read Your Road.*

Question. How do you plan to spend the $1 million earmarked for the Office of Highway Safety out of OTA funds? How much will be used for the Red Light Running Campaign and how much will be used to start a new initiative?

Answer. In FY 1997, the earmarked funds for highway safety outreach will be allocated to new initiatives--specifically, work zone safety, pedestrian safety, rail-highway grade crossing safety, and new communications technologies. It is not planned to expand funds on RLR.

Question. Please specify the progress made in implementing each of the items that were assigned to FHWA in the DOT Rail-Highway Grade Crossing Action Plan. Highlight which FHWA responsibilities have not yet been implemented and your plan for conducting each.

Answer. The FHWA is responsible for implementing 22 of the 55 individual elements of the 1994 DOT Rail-Highway Grade Crossing Action Plan, and has developed plans to implement each of the 22 individual elements. Activities to date are as follows:

1. **Action Element -Commercial Drivers License**
The FHWA will work with the American Association of Motor Vehicle Administrators (AAMVA) to examine the need for rulemaking to make grade crossing violations "serious traffic violations" on a Commercial Drivers License (CDL).
Action to Date: The FHWA has discussed this issue with the AAMVA and is considering a possible rulemaking action later this year.

2. **Action Element -National Highway System (NHS)**
The FHWA will encourage States, metropolitan planning organizations (MPO's), and safety management systems (SMS's) to address the upgrading or elimination of at-grade crossings on the NHS and give priority to the long-term goal of eliminating (through closure or grade separation) NHS intersections with Principal Rail Lines (PRL).

Action to Date: The FHWA will explore including grade crossings in any design standards/performance criteria that may be developed for the NHS. In the interim, FHWA's division offices have been working closely with States and MPO's to ensure that grade crossing issues are considered in the planning process. FHWA's divisions are encouraging the States to focus on eliminating crossings or installing active warning devices at NHS grade crossings, particularly at intersections with PRL's. In addition, FHWA's divisions are encouraging the States to incorporate the upgrading and elimination of NHS grade crossings under the umbrella of their SMS, and several States have agreed to revise their prioritization procedures to give additional weight to crossing closure proposals.

3. Action Element -Upgrade Signing and Marking

The FHWA will encourage States to increase the conspicuousness of signs and markings at grade crossings by promoting greater use of longer-lasting, high-grade reflective materials.

Action to Date: A number of States are using Federal funds to upgrade rail-highway crossing warning signs by installing improved retro reflective materials. In many cases, the highly reflective material is being installed on both sides of the crossbuck sign and the sign's support post. This dramatically increases the conspicuousness of these traffic control devices.

4. Action Element -Consider Installation of STOP Signs Where Warranted

The FHWA will encourage States to consider the installation of STOP signs at grade crossings where they are warranted. Guidance on STOP sign installation was issued in a July 8, 1993, joint memorandum from FHWA and FRA to their respective field offices.

Action to Date: FHWA's division offices have discussed the use of STOP signs with the States, but many are reluctant to place them on State routes--especially on those that carry significant volumes of traffic. They are considering STOP signs where they are warranted and where they can be deployed without creating other safety problems. Most States have endorsed placing STOP signs at crossings on low-volume local roads.

5. **Action Element -Incentives for Crossing Consolidation (Bonuses)**
Legislation will be proposed that would allow Federal funds to be used for paying a bonus to local communities that close grade crossings.
Action to Date: In June 1994, DOT submitted legislation to Congress relating to this issue but it was not enacted. The DOT will consider this and other funding issues in its legislative proposals for reauthorization of Surface Transportation Programs.

6. **Action Element -Incentives for Crossing Consolidation (100% Funding)**
Legislation will be proposed that will allow 100 percent Federal funding for projects to close grade crossings.
Action to Date: In June 1994, DOT submitted legislation to Congress relating to this issue but it was not enacted. The DOT will consider this and other funding issues in its legislative proposals for reauthorization of Surface Transportation Programs.

7. **Action Element -Check List for Corridor Reviews**
The FHWA, in coordination with FRA, will develop a "check list" of items to be considered in a corridor analysis of crossings.
Action to Date: The "check list" (now called the "Corridor Analysis Guide") was developed in coordination with FRA and distributed to FHWA's field offices in May 1995. Some States have incorporated the guide in their SMS's. The corridor concept has been generally well received by the States.

8. **Action Element -Railroad-Highway Grade Crossing Handbook**
The FHWA, in cooperation with other DOT agencies, will revise and update the 1986 issuance of the *Railroad-Highway Grade Crossing Handbook*.
Action to Date: A contract was awarded in September 1995 and a final draft outline of the revised Handbook has been received from the contractor. We plan to complete and distribute the updated Handbook by the end of 1997.

9. **Action Element -Vegetation Clearance**
The FHWA will encourage States to incorporate in their SMS's guidelines to ensure that vegetation is continually cleared on highway rights-of-way at grade crossings.
Action to Date: FHWA field offices have discussed with State maintenance and operations personnel the need to establish maintenance practices to

ensure that any obstructing vegetation is cleared from highway rights-of-way at crossings. All States have maintenance programs to keep vegetation under control. Clearance, however, is generally limited to the State's right-of-way, as most have no jurisdiction to enter private or railroad property for this purpose. Most States have included this item in diagnostic reviews as well as in SMS's.

10. Action Element -Corridor Review Participation
Legislation to allow Federal funds to be used as an incentive to States that review crossings for improvement on a corridor basis rather than individually will be proposed.

Action to Date: In June 1994, DOT submitted legislation to Congress relating to this issue but it was not enacted. The DOT will consider this and other funding issues in its legislative proposals for reauthorization of Surface Transportation Programs.

11. Action Element -Distribution of Funds
The FHWA, in cooperation with FRA, will initiate a study of the formulas used to apportion funds to the States for grade crossing improvements to determine if there may be a more equitable distribution formula, possibly including the number of crossings and accidents in each State.

Action to Date: A proposal was submitted to FHWA's Office of Policy Development in May 1995 for consideration in DOT legislative proposals for reauthorization of Surface Transportation Programs. We also shared the information with Indiana Senators Lugar and Coats for their use in grade-crossing safety legislation they recently introduced.

12. Action Element -On-Guard Notice
Publish and distribute to all 270,000 interstate motor carriers an On-Guard notice to alert the truck and bus industry to the danger at crossings.

Action to date: This was completed in February 1996. We will try to determine how the notices are being used.

13. Action Element -Advisory Bulletin
Send an advisory bulletin to the trade press about the danger of accidents at crossings.

Action to Date: This was done in February 1996. We will be tracking how these are used.

14. Action Element -**Public Service Print Advertisements**
Prepare public service print advertisements for the trade journals on truck and bus accidents at highway-rail crossings.
Action to Date: Print ads have been developed and distributed. We will try to determine where they are used.

15. Action Element -**"Trucker-on-the-Train" Program**
Work with Amtrak, the American Trucking Association (ATA), Brotherhood of Locomotive Engineers, Operation Lifesaver (OLI) and FRA to create a "Trucker on the Train" program where motor carrier executives and drivers accompany train engineers on the engine of a train to view dangerous highway-rail crossings.
Action to Date: A press conference was held in September at Washington, D.C.'s Union Station. The "kick-off" train ride was held on November 17 between Cleveland and Toledo. Other such events are being considered.

16. Action Element -**OLI**
Encourage OLI staff to meet with trucking companies and associations regarding the dangers at crossings.
Action to Date: Representatives from FHWA, FRA, OLI, Amtrak, railroads, etc., are meeting on an ongoing basis with trucking companies and associations.

17. Action Element -**National Safety Organizations**
Address the issue at meetings of National safety organizations such as the International Association of Chiefs of Police.
Action to Date: This issue is being included and will continue to be included in speeches to appropriate organizations. We supplied major amounts of editorial material to the National Safety Council (NSC) for inclusion in a widely distributed booklet, "Don't Gamble at the Tracks," aimed at professional drivers. The booklet was distributed by NSC in March 1995.

18. Action Element -**On-Site Compliance Reviews**
Ensure that motor carriers are informed of the risks of highway-rail crossings at on-site compliance reviews conducted by the Office of Motor Carriers (OMC) field staff and State personnel.
Action to Date: A December 14, 1994, memorandum was issued to OMC Regional Directors instructing them to discuss this matter when carriers are contacted. Printed material outlining the risks

at grade crossings is being provided to carriers during on-site visits.

19. Action Element **-Operation Lifesaver Matching Funds**

Legislation will be proposed to provide additional Federal funding for OLI.

Action to Date: In June 1994, DOT submitted legislation to Congress relating to this issue but it was not enacted. The DOT will consider this and other funding issues in its legislative proposals for reauthorization of Surface Transportation Programs.

20. Action Element **-Signs and Signals**

The FHWA, in cooperation with FRA, will initiate conceptual studies of new highway rail crossing warning devices with the goal of providing additional information to motorists about whether there is an active or passive warning system at the crossing and information about the direction from which a train is approaching the crossing.

Action to Date: FY 1996 funding has been identified to initiate these studies. The FHWA has met with representatives of FRA, NHTSA and OLI to develop a research project. Based on that meeting, the results of the Volpe workshop, and the work of the Secretary's Task Force on Highway-Rail Crossing Safety, a request for procurement (RFP) has been generated for a project to examine the use of regular highway traffic signals at grade crossings and develop signing that provides motorists with better information at grade crossings.

21. Action Element **-Manual on Uniform Traffic Control Devices (MUTCD)**

The FHWA will propose changes to the MUTCD pertaining to high-speed rail crossings, work zones, STOP signs, DOT/American Association of Railroads (AAR) inventory numbers, and light rail.

Action to Date: A notice of proposed amendments to the MUTCD was published in the *Federal Register* in June 1995. The comment period was extended to March 11, 1996. Comments are being evaluated and final rule will be published by the end of 1996. The new MUTCD will be published in 1998.

22. Action Element **-National Inventory**

The FHWA will encourage States to incorporate in their SMS's means of ensuring that the DOT/AAR Inventory is updated on a systematic basis.

Action to Date: The FHWA field offices are encouraging States to incorporate in their SMS's a process for systematic updating of the highway data in the national grade crossing inventory. There have been problems getting updated information from some highway agencies and railroads because of staffing shortages and competing priorities.

Question. What were the results and recommendations of the comprehensive national review of highway-rail crossing design and construction? What will FHWA do with the results of this study?

Answer. The DOT Grade Crossing Safety Task Force Report, released on March 4, addressed five potential problem areas associated with grade crossings:

- The interconnection of grade crossing warning devices for vehicles and highway traffic signals.
- The storage area provided for vehicles between the tracks and adjacent parallel highways.
- High-profile crossings.
- Light rail system grade crossings.
- The lack of adequate grade crossing information included in special permits issued to operators of oversized and overweight vehicles.

In addition, the Report offered 24 recommendations that should help improve safety at grade crossings.

The FHWA recognizes that without the cooperation and active involvement of the States, implementation of many of the Task Force recommendations will be difficult. The FHWA is working to actively engage the American Association of State Highway and Transportation Officials (AASHTO) and the individual States in developing an effective plan to implement recommendations that necessitate direct or cooperative actions by States and/or local highway agencies.

On May 28, FHWA provided an implementation guidance memorandum to the field offices on the four short-term recommendations in Section VI of the report (Interconnected Signals and Storage). The memorandum strongly encourages the FHWA field offices to conduct personal visits with their State and local counterparts to ensure that the recommendations are implemented to the maximum extent feasible. Since the issuance of the Report, FHWA and the FRA staffs have met frequently to develop strategies for implementing the Report's recommendations.

In order to evaluate current standards and guidelines for a variety of grade crossing technical issues, FHWA will convene a technical working group. This technical working group will include representatives from AASHTO, the Institute of

Transportation Engineers), ATA, the American Public Works Association, the National Association of County Engineers and the other organizations from both the public and private sector. The working group meeting is scheduled for July 1 and 2 in Washington, D.C. The FHWA is also coordinating with FRA to develop a strategy for initiating regional conferences throughout the county for discussing grade safety issues in those Regions where meetings are now held on a routine basis.

Question. I understand that you are implementing a Speed Management Plan with NHTSA. What progress have you made? What specific objectives have not yet been fully implemented and what is your schedule for implementation of these objectives?

Answer. FHWA and NHTSA developed a Speed Management Work Plan in 1995. The objective is to develop a wide range of strategies to effectively manage speed on FHWA's Nation's highways, thereby reducing accidents and fatalities. The work plan is a broad-based approach that encompasses engineering; enforcement; public information and education; and behavioral efforts, both in the operational and research areas. The major components of the work plan are: Improved Information and Analysis, Speed Zoning, Technology Development, Enforcement, and Public Information and Education. Each of these components has a specific objective. A number of activities were originally proposed under each component as part of the work plan and activities have been initiated under each component.

The work plan was developed prior to the repeal of the National Maximum Speed Limit (NMSL) in late 1995. The contents of the work plan have just recently been updated to reflect some changes in emphasis since the repeal of the NMSL. FHWA and NHTSA plan to review the work plan annually and revise as needed.

Out of the original 27 activities in the plan, 6 have been completed, 13 activities are now ongoing, 7 activities have been delayed or have yet to be initiated, and 11 new activities have been added. Due to institutional barriers, the additional activities, and difficulties in obtaining funding to initiate some of the speed activities, work plan activities are now scheduled through the year 2002.

Question. What is the exact amount and nature of any contracts signed to implement this speed management plan?

Answer. The following are the contracts and purchase orders that have been signed to date (some of the activities are jointly funded and only the FHWA portion of the total costs are shown):

- Speed/Accident Problem Identification--This is a NHTSA contract now underway to relate driver characteristics, speeding, and other unsafe characteristics to crashes. FHWA has contributed $260,000.00 to this effort.
- Speed-Roadway Relationships--This activity is a task in a larger FHWA contract effort entitled "Design Consistency Evaluation Module for the Interactive Highway Safety Design Model." The purpose of this effort is to quantify the speed-roadway relationships, such as "highway type," "levels of service," and "roadside development." The FHWA cost for the total contract is $1,150,000.00.
- Characteristics of Fast/Slow Drivers--This is a NHTSA contract now underway that will address speeding and other unsafe practices. There are no FHWA funds in this activity.
- Synthesis on Speed Management--This effort will be a FHWA purchase order to be awarded in June 1996. The total cost of this work will be under $25,000. FHWA and NHTSA are sharing the cost of this study. This synthesis on speed management will update two previous syntheses on speed management. The previous syntheses were prepared in the mid 1970's and the mid 1980's.
- Criteria for Establishing Speed Limits--This FHWA purchase order was completed in FY 1994, and the total cost was approximately $25,000. Criteria were established for setting speed limits, and a procedure was outlined to involve the local community and enforcement and judicial personnel. The criteria are to be field evaluated in a planned FHWA effort.

Question. How many States are receiving funds to examine whether existing speed limits governing specific segments of highways are appropriate and meaningful, or enforceable? When were these contracts issued and for what amounts?

Answer. No states are receiving funds for that purpose. However, the FHWA does plan to work with a few local governments to evaluate compliance with traditional speed-setting criteria but with greater involvement of the general public and the enforcement and judicial communities. FHWA is also planning a safety outreach effort to determine if compliance with the speed limits improves after such outreach.

Question. What have you done to encourage any local communities to improve the setting of speed limitations under their jurisdictions? Have you provided any seed monies to communities for this activity?

Answer. FHWA does plan to work with a few local governments--with the involvement of the general public and the enforcement and judicial communities--to evaluate speed-setting criteria and determine if compliance with the speed limits improves. FHWA will provide some seed monies to the local governments for this effort.

Through the Nevada Local Technical Assistance Program Center, FHWA set up a meeting in early April with a number of representatives of local governments in Nevada. The purpose of the meeting was to see if any of the local governments would be willing to work with FHWA in evaluating criteria for setting speed limits. At least 2 of the communities expressed interest.

FHWA plans to begin work with the local governments in Nevada very soon. Each of these efforts will cost approximately $50,000, and the evaluations should last about 2 years. After these efforts are underway, FHWA will try to find locations in other parts of the country to do additional evaluations.

Question. Several years ago you promised to prepare a best practices guidebook related to Safety Management Systems. When was the contract let? What was accomplished as a result of this contract?

Answer. A contract was awarded in 1995 to identify the best Safety Management Systems' practices and to prepare a guidebook that can be used to conduct workshops to highlight these best practices. A draft guidebook has been developed and is being revised based on the comments from Safety Management System Team members. At least one workshop is planned by September, 1996.

Question. Please bring us up-to-date on your programs in implementing the 5-year strategic plan for the Office of Highway Safety. What changes in the operation and perspectives of this Office have you experienced as a result of implementing the strategic plan?

Answer. The 5-Year Strategic Plan for the Office of Highway Safety (OHS) was submitted to the Congress in May 1995. Since that time, work has continued to address the goal and objectives stated in the plan. OHS is continuing to focus on safety management systems, improved public outreach efforts, pedestrian safety, speed management, and single vehicle crashes through activities of the Safety Design Team and the Work Zone Team.

Following the submittal of the strategic plan, OHS undertook a review of all ongoing safety initiatives and the level of effort that each of these initiatives involved. After the review, the number of people assigned to each of the teams was modified and discussions were initiated regarding continuation of some of the non-team activities and the level of effort devoted to these non-team activities. The number of teams and the scope of the team activities are currently being reviewed with the objective of making sure that the most relevant current and future safety issues are being addressed and adequate resources are devoted to these issues.

Question. Which aspects of the plan are behind schedule or need to be modified based on your progress and experience?

Answer. Since the 5-Year strategic plan did not have a schedule for various aspects of the program, it is not possible to say if FHWA is behind schedule. Some of the efforts covered in the strategic plan have not yet been initiated. These include the establishment of a university-based safety training program for highway safety professionals to improve the quality of highway safety programs, special safety programs for the elderly and special-needs-drivers, and the initiation of rotational assignments between FHWA and NHTSA. Work is continuing, or has been initiated, on all other aspects of the strategic plan.

Question. How is the Office of Highway Safety providing leadership through improved communication and outreach to your customers.

Answer. The OHS is providing leadership through close alliances with an array of highway safety partners, in addition to implementing several successful highway safety outreach activities in concert with private and public sector groups. Examples include serving on the faculty of NAGHSR executive management seminars; promoting and distributing the *Making Safer Roads* video that was developed by the Insurance Institute for Highway Safety; supporting the safety activities of the Roadway

Safety Foundation; serving as one of the sponsors of the annual Lifesavers Conference, and representing FHWA on a variety of safety coalitions (e.g. 3D Week, the Administrative License Revocation Task Force, Traffic Safety Alliance, etc). In addition, the OHS is actively soliciting input from the public on highway safety issues to include in the transportation reauthorization process.

Question. For each team in the Office of Highway Safety, please highlight major accomplishments, remaining challenges and projects underway.

Answer.

Work Zone Team Activities

Major Accomplishments:

- Developed the National Work Zone Safety Program.
- Developed criteria and procedures for the crash testing of traffic control devices and safety appurtenances used in work zones.
- Developed NHI course on training instructors in "Inspection of Work Zone Traffic Control Devices" and "Design and Operations of Work Zones."
- Showcased Strategic Highway Research Program (SHRP) devices related to work zone safety.
- Developed and distributed the *Annual Work Zone Report*.
- Partnered with the State of Minnesota to demonstrate and provide information on effective public awareness activities associated with work zones.
- Provided technical assistance to States requesting aid and participated in field reviews of projects and programs associated with work zone operations.
- Served as a focal point/clearing house for research, programs, certification, devices and appurtenances related to work zone safety and efficiency.

Remaining Challenges:

- Implementing the National Highway Safety Work zone Program.
- Developing and implementing quality assurance programs such as "train-the-trainer" activities for Rural Transportation Assistance Program centers that bring safer work zone activities to local governments and utility companies.

- Identifying State and local programs for effective work zone safety initiatives and implementing these programs nationwide.
- Developing better methods of managing speed in work zones.

Programs Underway:

- Development of certification programs for flaggers and work zone supervisors, public awareness programs and a clearing house for information related to safe and effective work zone operations.
- Training of Federal, State, and local personnel associated with the design and maintenance of work zone traffic control plans and activities.
- Crash testing of work zone safety appurtenances to determine their appropriateness for continued use in work zones on the NHS.
- Development of a National clearing house for work zone information.
- Development of a national public awareness effort for improving driver performance in work zones.

Design Team Activities

Major Accomplishments:

- Developed technical training course, "Highway Safety Features and Appurtenances".
- Edited and formatted new AASHTO publication, *Highway safety Design and Operations Guide.*
- Developed recommendations for updating the AASHTO *Roadside Design Guide.*
- Developed plan and initiated activities to recertify safety hardware under National Council Highway Research Project (NCHRP) 350.
- Produced and distributed Standard Drawings of Highway Safety Hardware.
- Developed maintenance guidance, special details, and supporting information for retrofitting blunt end terminals and damaged breakaway crash terminals (BCT) with the modified eccentric loader terminals (MELT).
- Coordinated with industry to develop and implement grading details for commercial barrier terminals.
- Reissued technical standards for approved bridge transitions and special barrier applications.
- Coordinated with FHWA regions and divisions and State personnel to identify safety needs and resolve special safety problems.

- Assisted FHWA field offices and States in implementing the new hardware guide. Conducted technical sharing reviews with selected States.

Remaining Challenges:

- Continuing to develop guidance, promote, implement, and provide technical assistance in elimination of blunt end terminals and retrofitting of unconnected bridge approach roadside barrier.
- Assisting in the recertification of Highway safety hardware to the requirements and test levels in NCHRP 350.

Traffic Control Device Team Activities

Major Accomplishments:

- Publication of FHWA Docket 95-8 Notice of Proposed Rulemaking (NPRM)--National Standards for Traffic Control Devices: Revision of the MUTCD(42 changes)(Request for Comments). End of comment period: 3/96.
- Publication of FHWA Docket 96-9 NPRM--National Standards for Traffic Control Devices: Pedestrian, Bicycle, and School Warning Signs (Request for Comments). End of comment period: 10/96.
- FHWA Docket 96-20 Interim Final Rule--National Standards for Traffic Control Devices: Metric Conversion (Request for Comments). End of comment period: 8/96.

Projects Underway:

- Evaluation of *All Weather Pavement Markings* (AWPM). This is funded under ISTEA Section 6005(a). A Final report is expected in 1999.
- Revision of *Standard Highway Signs Book.* Updating and metrication of text, signs, graphics and traffic control device details contained in the current *Standard Highway Signs Book, Standard Alphabets Manual,* and other material related to the MUTCD. This document will also be produced in electronic format (CD-ROM). Publication expected summer 1988.
- NHS Route Marker--NPRM (Request for Comments) expected to be published in the Federal Register in June 1996.
- North American Free Trade Agreement--Preparation of guidance pamphlet for traffic control devices differences and rules of the road. (9/96)

Rulemaking:

- FHWA Docket 96-15 NPRM--National Standards for Traffic Control Devices: Standards for Center Line and Edge Line Markings. (Request for Comments). Expected to be published in the Federal Register 7/96.
  FHWA Docket 95-8--Final Rule expected 10/96.
  NPRM--Sign Retroreflectivity (10/96).
  NPRM--Pavement Marking Retroreflectivity(3/97).
- Rewriting and reformatting of the MUTCD--Phase I--NPRM (Request for Comments) expected 09/96. Parts 3, 4, and 8 of the MUTCD.
- Rewriting and reformatting of the MUTCD--Phase II--NPRM (Request for Comments) expected in April of 1997. Parts 1, 2,6, 7, 9, including Part 5 (new Low Volume Roads) and addition to Part 8.
- Final Rule on the entire MUTCD rewrite expected January 1999.

Remaining Challenges:

- Revision of Title 23, Code of Federal Regulations (CFR), Subchapter F--Determination of Color for Sign and Pavement Markings. Revise the "Color Limits and Reference Standards". Review existing standards and develop new chromaticity limits.

Strategic Planning Team Activities

Accomplishments:

- Prepared and submitted a Report to Congress in May 1995 detailing a 5-Year Strategic Plan for the OHS.
- Conducted a review and prioritization of all ongoing activities in the OHS.
- Based on the team's recommendations in the prioritization study, team memberships were reviewed and modified.

Challenges:

- Develop a data/analysis agenda which identifies future highway safety needs and legislative options.

Projects Now Underway:

- No work is currently underway.

Speed Management Team Activities

Accomplishments:

- Developed and updated the joint FHWA/NHTSA Speed Management Work Plan. Undertook the activities specified in the work plan.
- Developed a joint FHWA/NHTSA policy Statement on speed.

- Provided input on the NMSL issues during the preparation of the NHS Bill.
- Track speed limit changes on a State-by-State basis.
- Assisted in the preparation of the fourth and eighth quarter material, which focuses on speeding, for the Safe and Sober Campaign.
- Participated in the preparation of the NHS Report to the Congress on the costs of deaths and injuries resulting from motor vehicle crashes and the benefits resulting from the repeal of the NMSL.
- Provided guidance to States, local governments, enforcement agencies, and FHWA and NHTSA field offices on speed issues.

Challenges:

- The need to provide better guidance to FHWA's customers, particularly FHWA and NHTSA field personnel. Better guidance is needed in the areas of speed limits and design factors, and speed limits in work zones.

Projects Now Underway:

- Speed/Accident Problem Identification--this is a NHTSA contract now underway to relate driver characteristics, speeding, and other unsafe characteristics to crashes.
- Speed-Roadway Relationships--this activity is a task in a larger FHWA contract effort entitled "Design Consistency Evaluation Module for the Interactive Highway Safety Design Model." The purpose of this effort is to quantify the speed-roadway relationships, particularly highway type, levels of service, and roadside development.
- Characteristics of Fast/Slow Drivers--this is a NHTSA contract now underway in which speeding and other unsafe practices will be addressed.
- Synthesis on Speed Management--this effort will be a FHWA purchase order to be awarded in June 1996. This synthesis on speed management will update two previous syntheses on speed management. The previous syntheses were prepared in the mid 1970's and the mid 1980's.
- Other speed-related projects are planned and due to get underway in late FY 1996 and early 1997.

Outreach Team Activities

Major Accomplishments:

- Implementation of the RLR campaign in communities across the country.

- Completion of the *Read Your Road* highway user's guide.
- Completion of the Roadway Safety Interactive Kiosk.

Remaining Challenges:

- Developing a partnership marketing plan for *Read Your Road.*
- Developing campaigns for Yield Right-of-Way and the Rail-Highway Grade Crossing Safety Programs.

Safety Management Systems Team

Major Accomplishments:

- Provided technical assistance to States and localities on the benefits of SMS's.
- Provided input on the SMS provisions of the Management Systems Final Rule.
- Revised the Good Practices Guidance for SMS's.
- Development of an advanced SMS course is nearly completed.

Current Projects:

- The development of a workshop to highlight the best SMS practices is being finalized. A draft guidebook has been developed and is being revised. Additional workshops are planned for fall of 1996.
- Methodologies for evaluating the effectiveness of SMS's are being developed. Two separate contracts have been awarded to develop micro-level and macro-level evaluations.
- Work continues on efforts to market SMS's.
- Work will begin shortly on the development of a brochure to promote SMS.

Remaining Challenges:

- Provide National leadership and promote the implementation of a SMS in each State.
- Develop a training course for SMS's directed at the quality management process.

Railroad-Highway Management Grade Crossing Safety Team Activities

Major Accomplishments:

- Implemented the DOT Rail-Highway Grade Crossing Action Plan.
- Assisted in development of the DOT Grade Crossing Safety Task Force Report.
- Worked with FRA to issue a guidance memorandum and several publications for safety enhancements at crossings.
- Worked closely with FRA to develop a modified allocation formula for Section 130 funds.

Remaining Challenges:

- At present most FHWA grade crossing safety activities are driven by the DOT's Action Plan and Task Force Report. Successful implementation of the Action Plan and the Task Force items will require effective coordination and cooperation within FHWA and with other Federal agencies, State and local governments, planning organizations, and the railroad industry. The team will, therefore, work to actively engage all parties to participate in the implementation phases of those action items.

Projects Underway :

- Updating the popular and widely used *RAILROAD-HIGHWAY GRADE CROSSING HANDBOOK*.
- Proposing changes in the MUTCD related to traffic control devices at grade crossings and work zone operations in the vicinity of grade crossings.
- Undertaking new research related to improve grade crossing safety.
- Forming alliances with OLI and other National safety and law enforcement organizations.
- Proposing legislation that would encourage the closing of grade crossings and improving the safety of grade crossings.
- Administering the Rail-Highway Grade Crossing Program.

Question. How much money are you spending in FY 1996 and planning for 1997 on work zone safety? Please provide detail on current projects and their funding amounts and sources.

Answer. The following are details on the types and amounts of expenditures:

The largest amount of money is regular Federal-aid project funds spent on all highway projects involving traffic control for work zone activities. Generally, the amount spent for traffic control on a Federal-aid project ranges from about 3 percent to 25 percent, depending on the difficulty of the job. We have no way of determining the amount of Federal-aid funds spent on work zone traffic control, but estimate that it is an average of 8 to 10 percent of construction project costs for work done on an existing highway.

In addition, $700,000 is programmed for FY 1997, as described below:

- Updating the MUTCD Part VI, Use and Application of Work Zone Traffic Control Devices:
  FY 1996 - $15,000
  FY 1997 - $15,000
- National Highway Institute (NHI) training of Federal and State personnel in work zone safety related activities:
  FY 1996 - $237,000
  FY 1997 - $240,000
- Development and implementation of "train-the-trainer" activities associated with inspection and maintenance of work zone traffic control devices. This project is funded by the OTA:
  FY 1997 - $4,000
- Management of a public awareness program in cooperation with the State of Minnesota. This project provides travel funds for professional work zone experts from the State of Minnesota to travel to other States to provide information, materials, and technical assistance in developing or improving their own public awareness programs for safer work zones. This project is funded by the OTA.
  FY 1996 - $30,000
  FY 1997 - none
- Development of a National Work Zone Safety Public Education/Awareness Campaign. The material will be used by State and local agencies in conducting statewide or regional work zone safety campaigns. The project is pool-funded with State contributions of about $100,000.
  FY 1996 - $250,000
- Development of the National Work Zone Safety Information Clearinghouse in cooperation with the States and private industry. This effort is being jointly developed with National associations such as the AASHTO, American Traffic Safety Services Association, American Road and Transportation Builders Association, and others. It will be initiated with FHWA funds and continue to operate through private industry.
  FY 1997 - $500,000
- Development of a crash testing program to ensure that the traffic control devices used in work zones on the NHS are crash worthy. FHWA will be conducting crash tests on some generic devices and has initiated a pool-funded research study through which

contributing States can develop and crash test devices they consider appropriate to work zone safety. The study will be funded by participating State funds anticipated to be about $150,000 annually.
FY 1996 - none
FY 1997 - $20,000

- Participation in a series of State Work Zone Reviews to identify both good and bad practices in developing and maintaining safer work zones: FY 1996 - $10,000
  FY 1997 - $10,000
- Ongoing research in the area of work zone safety. This includes the third year of a project on evaluating work zone injuries and fatalities not caused by traffic. In addition, a new research project is planned for FY 1997 on Work Zone Exposure Analysis. The project will gather information on work zone crashes related to work zone activities, traffic volume, and weather at the time the collision occurs. These projects are funded through the Office of Safety and Traffic Operations and Research and Development:
  FY 1996 - $330,000
  FY 1997 - $400,000
- Participation in several National meetings each year that promote and encourage work zone safety:
  FY 1996 - $4,000
  FY 1997 - $4,000
- Intelligent Transportation Systems have facilitated the commercial development of several innovative devices that provide advanced warning to motorists of restrictive conditions or break downs in work zones. Additionally, ITS have facilitated the management of complicated/multiple work zone activities through collection and analysis of real time traffic conditions.
- Implementation and marketing of work zone safety devices through a comprehensive program developed under the Strategic Highway Research Program (SHRP). In 1996, FHWA activities include developing and marketing the portable crash cushion and the marketing of the intrusion alarms systems in partnership with private industry.
  FY 1996 - $300,000

Question. How does the ITS program serve the needs of the work zone safety community?

Answer. Several areas of Intelligent Transportation Systems (ITS) technology development have the potential to serve work zone safety needs, such as portable variable message signs that can be remote-controlled and provide real time traffic advisories approaching work zones. Also, through electronic surveillance and control, traffic management centers are able to manage traffic through work zones and detect incidents that may occur in work zones early on, thereby providing quick response to them.

Another technical area being researched is In-vehicle Information Systems, which have the capability to advise motorists of best routings to avoid delays and to alert motorists of hazards ahead, such as work zones. While no ITS funds are being used directly to solve highway work zone problems, the emerging technologies have applicability to work zones situations.

Highway Safety Research and Development (R&D) funds were used to improve the legibility and message content for variable message signs that are used extensively for work zone advisories. As indicated above these variable message signs are a component of ITS traffic control systems.

Question. Please discuss major activities and FY 1996 planned spending amounts that have been approved by the RTCG for Highway Safety.

Answer. The following Safety R&D funding levels have been obligated for the identified safety research priority areas: Advance Traffic Control - $1,210,000; Highway Safety Information Management - $1,620,000; Interactive Highway Safety Design Model - $1,870,000; Roadside Safety Hardware - $1,480,000; Human Factors Research for Highway Safety - $ 3,590,000; and Pedestrian & Bicycle Safety - $2,000,000. In addition, $1,720,000 was obligated to support the Federal Outdoor Impact Laboratory, the Geometric Design Laboratory, the Highway Driving Simulator, and the Human Factors Laboratory.

Safety Technology Application funding for FY '96 includes $2,450,000 for Safety Hardware and $2,360,000 for Safety Systems. Some of the major efforts under these general categories include the "Red Light Running" public safety campaign, work zone public safety campaign, highway safety management system workshops, retroreflectivity data analysis/training development and advance technology patrol car. ISTEA designated funding of $2,000,000 for all-weather pavement marking was also obligated.

Question. In Conference Report 104-286, the conference agreement provides $8,768,000 for safety-related R&D. The conferees directed that the total R&D safety activity be funded at a level of at least $12,768,000, including both ISTEA and appropriations authority. Please specify your spending plans to implement this requirement and show the allocation of any ISTEA, Section 6005, and GOE funds. Please show the amounts allocated to key safety projects now underway.

Answer. Approximately $8,635,000 of GOE funds and $4,130,000 of ISTEA(6005) funds were allocated for use in the Safety R&D program for FY '96. The use of the two funding sources by Safety High priority areas were split as follows: Advance Traffic Control Devices - $360,000 (GOE) and $850,000 (Sec.6005); Highway Safety Information Management - $630,000 (GOE) and $990,000 (Sec. 6005); Interactive Highway Design Model - $1,870,000 (GOE) and $0 (Sec. 6005); Roadside Safety Hardware - $1,160,000 (GOE) and $320,000 (Sec. 6005); Pedestrian and Bicycle Safety - $2,000,000 (GOE) and $0 (Sec. 6005); and Human Factors for Highway Safety - $2,410,000 (GOE) and $1,180,000 (Sec. 6005). Additionally, $1,720,000 of GOE funds were used for support services contracts and $860,000 for management and coordination costs.

Question. What were the major accomplishments that have resulted from the allocation of safety R&D monies during the last three years?

Answer. The following represent the major accomplishments of the R&D program for the past 3 years:

- Establishment of the Geometric Design Laboratory at the Turner Fairbanks Highway Research Center.
- Development of preliminary Interactive Highway Safety Design Models (IHSDM) for predicting the number and severity of accidents on two-lane rural roads and signalized intersections.
- Development of a prototype IHSDM speed profile model for two-lane rural highways that can be used for identifying aspects of a highway design that violate driver expectancy.
- Development of a prototype IHSDM vehicle dynamics model.
- Negotiation of a Cooperative Research and Development Agreement with a CAD vendor to integrate the IHSDM into their roadway design package.

- The FHWA/NHTSA Crash Analysis Center (NCAC), processed over 1500 public requests for films and data. The NCAC also developed models of a pickup truck and a reusable test vehicle, and used them in the development of improved breakaway sign supports.
- Crash tested 28 different sign support systems used by the States in strong and weak soils at the Federal Outdoor Impact Laboratory.
- Crash tested all of the standard guardrails used on U.S. highways to see if they meet the new test requirements developed under the National Cooperative Highway Research Program (NCHRP 350) and adopted by the FHWA.
- Crash tested aesthetically-pleasing bridge rails and developed improved designs.
- Synthesized information on bicycle safety-related research, policy, and programs.
- Developed a training course on integrated networks of non-motorized transportation facilities into ISTEA-mandated long-range plans.
- Analyzed a sample of 5000 pedestrian-motor vehicle and 3000 bicycle-motor vehicle crashes to refine and update the understanding of the location and circumstances of these crash types. A final report for researchers and two informational guides for practitioners were developed.
- Developed a bicycle compatibility index to allow engineers, planners, and bicycle/pedestrian coordinators to determine how well specific roadways accommodate bicyclists along with motor vehicle traffic.
- Assisted in the creation of a "Partnership for a Walkable America" to focus on pedestrian safety, health, and accessibility issues.
- Expanded the Highway Safety Information System (HSIS) to include three new States for a total of eight. The HSIS integrates accident, roadway, and traffic data for use in studying policy and program issues, identifying and scoping needed research, and providing a cost-effective data source for researchers nationwide to study current highway safety issues.
- Utilized the HSIS in over 50 studies of highway safety issues. Ten HSIS summary reports, documenting the results of significant findings, were published and

distributed nationwide. The topics included, older drivers at intersections, roadway widths for low-traffic volume roads, the magnitude and severity of passing accident on two-lane rural roads, a comparison of the safety of lighting options on urban freeways, and an investigation of work zone accident reporting practices.

- Field-tested and evaluated new technologies (pen-based computers, GPS receivers) that can be used to improve the collection of accident data.
- Developed and tested new statistical techniques and analysis methodologies for use by State and local engineers in identifying hazardous highway locations.
- Developed methodologies for use by State Departments of Transportation in evaluating their SMS's.
- Installed, operated, and evaluated an automatic truck rollover warning system on three ramps on the Capital Beltway in Virginia and Maryland.
- Developed the visibility requirements and recommendations for use of portable changeable message signs. Extensive human factor studies were undertaken and researchers recommended a set of 30 standard messages for highway applications.
- Completed preliminary evaluation of UV headlights and fluorescent materials to double driver night visibility distances.
- Developed minimum retro reflective guidelines for regulatory, warning, and guide highway signs.
- Worked under the Small Business Innovative Research Program to develop a preliminary visibility sensor for highway applications that is expected to cost about $300 per unit.
- Developed a Sign Management System to assist with implementation of minimum retroreflectivity guidelines.
- Evaluated the operation and safety effects of raising and lowering speed limits on surface streets and highways.
- Completed several studies on older drivers and had several significant findings.

Other Human factors-based research projects accomplished the following:

- Identified effective offset designs at intersections to increase sight distance for left turns during the permitted phase.

- Established that the most effective treatment for delineating curves is a combination of edgeline and roadside elements.
- Determined that subjects with high levels of sleep deprivation showed: high rates of simulated off-road crashes and crashes with other vehicles, increased lateral placement variability and steering variance, and higher numbers of lane excursions.
- Developed a computerized process (Recursive Blur Technique) as a tool to optimize symbol sign design to increase recognition distance and comprehension rates.
- Upgraded the fixed base HYSIM with a new, improved graphics system that enhances the entire visual scene. Also a new sign generator increased the brightness and visual range of signs.
- Redeveloped generic hardware systems and components that fail to meet appropriate NCHRP 350 test levels.
- Developed and/or participated in the development of essential research.
- Coordinated with the international community in the development of standard testing methods and acceptance of crash test results and commercial highway safety hardware products.

Projects Underway:

- Completion of the recertification of safety appurtenances consistent with NCHRP 350.
- Implementation of FHWA policy of replacing blunt end terminals on the NHS.
- Development of a training course to implement the soon to be published AASHTO *Highway Safety Design and Operations Guide.*
- Development of a crash worthy generic terminal that meets the requirements of NCHRP 350 test level 3 (for use on the NHS).

Question. In Conference Report 104-286, $1,000,000 was allocated to the Office of Highway Safety to support the Red Light Running Campaign and to increase compliance with yield right-of-way or grade crossing signs. What is the status of these efforts?

Answer. The allocated funds were dedicated to expanding the scope of the RLR campaign by tripling the number of RLR grants awarded and technical assistance provided to communities based on the volume of applications received and the National attention this campaign has generated. A highway motorist's manual, *Read Your Road,* was developed that includes information and tips on compliance with yield right-of-way or grade crossing signs.

Question. Is there a problem with people ignoring right-of-way signs? Would it be worthwhile to conduct a campaign to improve compliance with this traffic sign?

Answer. While there appears to be a general eroding of motorist compliance with a variety of traffic control devices, we have no data regarding a problem with right-of-way sign compliance. We would need to identify the magnitude of the problem and a comparison with other initiatives, before we can determine the this is a cost-effective area to fund.

Question. Please discuss in detail the role that FHWA is playing in NHTSA's Safe Communities initiative under both the Section 403 and Section 402 program.

Answer. The FHWA supports the use of roadway-related 402 grant funds for Safe Community projects, and FHWA field staff serve on Safe Community task forces and provide technical assistance on engineering-related projects and activities. Various RLR local campaigns are coordinated as part of safe community projects. At the National level, representatives of FHWA and NHTSA will be meeting to develop a coordinated plan on how to best partner in the Safe Communities initiative.

PLANNING

Question. How much money was allocated to TRANSIMS during FY 1995 and FY 1996, and planned for FY 1997? Please break out all GOE and ISTEA monies (including ITS and Section 6005 funds) allocated to this activity and their uses on a project by project or activity basis.

Answer. The information is provided in the following chart.

	GOE	ISTEA (6005)	ITS	OTHER	TOTAL
FY 1995	$2.2	$1.4	$0.5		$4.1
FY 1996	$2.0	$2.0		$1.0*	$5.0
FY 1997	$3.0	$2.0			$5.0

*$1.0 million requested from FTA, EPA, and ITS, but funding is not certain.

All monies for TRANSIMS, regardless of source, are allocated to the development, testing and implementation of TRANSIMS in accordance with the project work program. In FY 1995 major accomplishments included the design and implementation of the overall software framework and architecture, design of the structure for an activity demand component, and validation of the approach for traffic micro simulation. In FY 1996 the interim operational capability (IOC) for traffic micro-simulation will be completed. Also a case study to confirm the IOC features, applicability and readiness will be completed in collaboration with the North Central Texas Council of Governments. In FY 1997 the emphasis will be on the internodal route planner and air quality IOCs, with the completion of case studies for these two modules in FY 1998.

Question. If you do not plan to spend any Section 6005 or ISTEA monies on this activity during FT 1997, please explain why.

Answer. $2 million of Section 6005 funds will be spent in FY 1997.

Question. How much ITS-GOE money will be spent on TRANSIMS during FY 1997? How is this modeling effort useful to the National ITS Program?

Answer. We are not expecting any ITS funds for FY 1997. The TRANSIMS will provide a combined, integrated model for travel demand estimation, micro-assignment, and air quality analysis, where three separate models are now required. It will be based on the latest knowledge of travel behavior and incorporate a more accurate model of the decision process travelers go through in their daily travels than is currently being used. This improved model reflects characteristics of the transportation facility, including its operation, and the characteristics of the individual using the facility. In this regard, TRANSIMS will provide improved travel-related information for analyzing ITS strategies and the impacts of alternatives as an integral part of the metropolitan transportation planning process.

Question. Please prepare a table showing the expected sums required for each of the next few years to bring this project to completion.

Answer. The following assumes that the TRANSIMS is funded at the full $5 million level for FY 1996 (i.e., that $1 million is available from other agencies--FTA, EPA, and ITS).

FY 1998	$5.0
FY 1999	$5.0

Question. Will all States be able to use TRANSIMS?

Answer. TRANSIMS is currently being developed and tested as a metropolitan planning tool that can be run on microcomputers. Hence, States and MPOs should be able to use TRANSIMS. However, since TRANSIMS will be a significant departure from past practice, a major training and technical assistance initiative will be needed to assist States and MPOs in the transition to this new tool. Future development of TRANSIMS might include adaptations for statewide planning.

Question. Will the States have adequate input data to make TRANSIMS work for them?

Answer. While TRANSIMS has data requirements unique to its structure, improved and more accurate data are needed today that can better represent person and freight travel and provide input to better analyze the impacts of transportation proposals regardless of the travel forecasting method used. Travel forecasting methods in use today were developed 30 years ago, primarily to evaluate major highway capital improvements, with their adaptation in the 1970's for use in planning major transit capital facilities. Neither the models, nor the data collected to support them, are suited to responding to the questions being asked of the planning process today. Analyzing such things as the impacts of motor vehicle emissions, alternative development patterns, congestion pricing proposals, transportation control measures, or intelligent transportation systems requires more accurate data today than in the past, and obtained through improved data collection methods.

TRANSIMS is a major part of a comprehensive effort to improve the travel forecasting process, called the Travel Model Improvement Program (TMIP). Another component of TMIP is focused on improving data collection, acquisition, and use for States and metropolitan planning organizations (MPOs). Through this latter effort, we are assessing the data requirements for travel forecasting, both for current models and for TRANSIMS, and will ensure that States and MPOs have the information and technology with which to obtain and maintain data necessary to support TRANSIMS, as well as other components of the transportation planning process. One of the goals of the current Intermediate Operating Capability (IOC) tests underway in the Dallas-Ft. Worth metropolitan area is to determine the amount and type of transportation supply data necessary to effectively operate the first module of the TRANSIMS package, micro-simulation.

Question. Please discuss the impacts of delaying completion of this project by one year.

Answer. The States and MPOs are in need of new tools to assist in planning for ITS deployment and to improve the inputs needed for air quality conformity determinations. TRANSIMS will provide MPOs with (1)the capability to evaluate and analyze ITS strategies as components within the overall transportation planning program, and (2)improved tools to conduct the transportation planning process, including air quality analysis. Any delay will extend the use of less than effective methods. Discussions are currently underway regarding tougher NAAQS. Should tougher standards be adopted, TRANSIMS will be a critical tool for helping perform the analyses needed to demonstrate conformity.

At the current anticipated annual funding level of $5 million for 1997 through 1999, the development of TRANSIMS can be completed by 2000. The Los Alamos National Laboratory (LANL) has indicated this amount assures that a minimum staffing level is available for this project. Delays (interpreted as reduced annual funding) would result in LANL staff being reallocated to other projects. This would make it extremely difficult for the project to recover sufficiently to be completed successfully.

Question. How many jurisdictions will use TRANSIMS models? For which purposes?

Answer. Potentially all MPOs (339) could ultimately use TRANSIMS, although initially implementation will probably be focused on the larger MPOs in air quality non-attainment areas. In addition, State DOTs, air quality agencies, transit operators, and private sector firms engaged in the metropolitan planning or ITS deployment planning may choose to use TRANSIMS. TRANSIMS will enable metropolitan areas to more effectively analyze multi modal plan and project options, including major investment studies, congestion relief and mobility enhancements, ITS strategies, and other transportation operation improvements.

Question. Did FHWA establish regional technical assistance center to assist in metropolitan planning? If so, why is there a need for these centers in light of the availability of LTAP centers?

Answer. A pilot Technical Assistance Center was established at the Texas Transportation Institute (TTI) to assess the feasibility of a joint federal/State/locally funded center for providing planning technical assistance to metropolitan areas. FY 1996 marks the second year of operation and, based on the success of this center, we are considering adding additional centers. LTAP Centers that can provide the needed metropolitan planning focus are potential candidates for centers.

POLICY

Question. How much did FHWA spend on the last commodity flow survey? When was this completed? How much are you planning to spend on such a study in FY 1996 and FY 1997? Why is it critical to spend this amount?

Answer. The Commodity Flow Survey (CFS) was conducted in CY 1993. Funding included $6 million from FHWA, $7.8 million from the Bureau of Transportation Statistics (BTS), and approximately $3 million from the Bureau of the Census. Preliminary national statistics were released in June, 1995. The first state reports were released in February, 1996. All state reports should be completed by July, 1996, after which more detailed national reports and region-to-region flow data will be released by Census later this year. The next CFS is planned for CY 1997, and will be funded by Census and BTS. BTS anticipates spending $7 million on the CFS in 1997.

The CFS provides basic information on what is shipped by what means and where in the U.S. It is the only source of data on the geography of truck and intermodal transportation. The CFS is mandated by ISTEA Section 5002, and is a key input to a variety of national policy issues. A detailed explanation of the need for commodity flow data was provided in a report by BTS to the House and Senate Appropriations Committees in 1992.

Question. What studies were published as a result of the last commodity flow survey?

Answer. Preliminary CFS findings are discussed in the forthcoming BTS □Transportation Statistics Annual Report: 1996.″ State-level data and detailed national statistics will be featured in "Transportation Statistics Annual Report: 1997″ and in a series of special reports by BTS. CFS data are also being provided for the FHWA highway cost allocation and truck size and weight studies.

Question. Could this activity be conducted by the Bureau of Transportation Statistics?

Answer. The CFS is a component of the Census of Transportation, conducted every five years by the Bureau of the Census. BTS has assumed full responsibility for DOT's financial support. BTS staff will continue to work closely with FHWA and other modal administrations on sample design and publication issues to meet the data needs of the entire department. potential candidates for centers.

Question. What are the remaining issues that need to be addressed in the truck size and weight study with FY 1997 funds? Any additional funds needed for cost allocation work?

Answer. Work on truck size and weight (TS&W) and HCA with fiscal year (FY) 1997 funds will involve (1) addressing specific TS&W and user fee issues that come up following release of the reports or that come up during reauthorization debates; (2) continuing research on TS&W and HCA issues that was not completed in 1996, and (3) developing software, data, and procedures for use by the States in conducting their own HCA studies and TS&W analysis. The Federal Highway Administration (FHWA) plans to update the HCA Study on a periodic basis and FY 1997 research funds are needed to refine certain elements of the cost allocation research that could not be completed for the current study. Postponing this research would significantly add to the cost. The analytical framework for the TS&W Study has been designed as a flexible tool that can be used now and in the future with updates in data and methodologies. The FHWA hopes to retain the continuous capability to analyze TS&W matters and evaluate alternatives without embarking on new, separate studies each time TS&W issues arise. Continuing TS&W work will include more complete analysis of data from the Commodity Flow Survey which will not be available in time to be fully incorporated into current TS&W analyses and examination of additional TS&W options that may be of interest after the initial report is completed. Research on specific implementation issues surrounding various TS&W and user fee options also would be done using FY 1997 funds.

Question. Please specify total expenditures by year and by funding source for all activities related to the truck size and weight studies and the cost allocation study for each of the last three fiscal years including FY 1996.

Answer. The information is provided in the following chart.

	TRUCK SIZE AND WEIGHT STUDY	HIGHWAY COST ALLOCATION STUDY
FY 1994		
GOE	$179,000	$219,000
6005	$250,000	$273,000
FY 1995		
GOE	$630,000	$694,000
6005	$325,000	$175,000
FY 1996		
GOE	$300,000	$266,666
6005	$300,000	$300,000
HCAS line item	$1,000,000	$991,000

Question. Are you currently doing any evaluations of the innovative highway financing program? Are either Section 6005 or GOE FY 1997 funds set aside to do such evaluations? If so, how much?

Answer. FHWA is using Section 6005 funds to conduct a program review and evaluation of the of the TE-045 Innovative Financing Test and Evaluation Program. An overall assessment of TE-045 will be conducted at the national level and specific projects will be examined as case studies.

Question. What input have you given the safety community into the design, implementation, and evaluation of the cost allocation study?

Answer. A draft work plan for the HCA Study was published in the Federal Register on February 10, 1995, along with a request for comments on that plan. Detailed comments were submitted by one safety organization, Advocates for Auto and Highway Safety, which have been considered in conducting the study. A workshop was held in December 1995 at which the status of HCA research was discussed. Representatives of the Advocates for Auto and Highway Safety (AAHS) attended that workshop and offered several comments that are being considered in the study.

Question. What input have you given the safety community into the design, implementation, and evaluation of the truck size and weight study?

Answer. House of Representatives and Senate appropriations report guidance directs the Department to "seek input from all affected parties including the highway safety community" as it conducts the Comprehensive TS&W Study. A total of 24 representatives of the safety community participated in four regional outreach meetings chaired by senior policy officials in April and May 1996. The purpose of the outreach meetings was to inform all parties interested in the Comprehensive TS&W Study of the study's scope and analytical framework and to obtain their comments on how it should be improved. In addition, over 23,000 cards and letters from citizens concerned about safety have been received in response to three Federal Register Notices. Safety advocates also participated in two public meetings held in March and April 1995. Safety community representatives have attended all four open technical briefings by study contractors to present study methodology, answer questions, and receive input from interested parties on how the study tasks could be improved. In addition, letters were written to representatives of Citizens for Reliable and Safe Highways, AAHS, American Automobile Association, and American Insurance Association in August 1995, noting safety research underway in the Comprehensive TS&W Study and requesting recommendations for additional safety matters which deserve attention in the study as well as suggestions for names of organizations which would be well-qualified to conduct such research. Safety organizations have attended two open workshops on TS&W modeling and performance-based safety standards. Contractors responsible for leading TS&W focus groups have contacted safety advocacy groups and other interested parties for their suggestions on which questions are most appropriate and important to ask of typical automobile and truck drivers.

Question. What is the status of the congestion pricing pilot program? Please provide a history of Federal Register announcements on this program. How many projects are now being conducted? How many projects have received seed monies for exploratory studies? Please list the recipients of these funds and the amount allocated to each project. How much money remains unobligated under Section 1012(b) of ISTEA? When will these funds be obligated? What degree of certainty is there that legally binding contracts or cooperative agreements will be assigned disbursing these unobligated funds in the near future?

Answer. There are 10 active ISTEA Congestion Pricing Pilot Program projects and studies underway at this time: two are implementation projects; seven are pre-project studies; and one is for a monitoring and evaluation study of the SR-91 Express Lanes, a privately-funded congestion pricing facility in Orange County, California.

The current implementation projects are located in San Diego, California and Lee County, Florida. Of the remaining ISTEA congestion pricing pilot projects, seven are for pre-project congestion pricing studies in Boulder, Colorado; Houston, Texas; Los Angeles, California; Minneapolis, Minnesota; Portland, Oregon; San Francisco, California; and Westchester County; New York. The final grant, funded by the FHWA, FTA and California Department of Transportation, is for a monitoring and evaluation study of the SR-91 Express Lanes in Orange County, California. This privately-owned and operated facility is the first operational congestion pricing project in the United States. The study will offer valuable data and information beneficial to FHWA pilot program implementation projects.

The five Federal Register announcements that have been published on the ISTEA Congestion Pricing Pilot Program are as follows:

- May 29, 1992 (57 FR 22857) - Provided information on FHWA's interpretation of ISTEA's legislative language and solicited public comments on program guidelines and criteria for ranking and selecting program participants;

- November 24, 1992 (57 FR 55293) - Initial call for project proposals and guidelines for project selection;

- June 16, 1993 (58 FR 33293) - Summary of response to initial solicitation; extension of request for participation;

- May 25, 1994 (59 FR 27099) - Extension of request for participation; expanded eligibility to include "pre-project" studies and "HOV Buy-In" proposals; and

- September 25, 1995 (60 FR 49435) - Extension of request for participation; "Revenue Reserve Fund" added to provide incentive for toll authorities to propose congestion pricing initiatives.

The following table shows Section 1012(b) Congestion Pricing Pilot Program funds obligated through 1995. The Congress rescinded the unused balance of Pilot Program funds in FY 1995, and transferred authorizations for FY 1996 and FY 1997 to other purposes.

ISTEA CONGESTION PRICING PILOT PROGRAM FUNDS

GRANT RECIPIENT	PROJECT CO-SPONSORS	AMOUNT OBLIGATED/ TYPE
California Department of Transportation (Caltrans)	Caltrans and San Diego Association of Governments	$ 7,960,000 PROJECT
Caltrans	Caltrans and Metropolitan Transportation Commission	$ 1,500,386 STUDY
Florida Department of Transportation (FLDOT)	FLDOT and Lee County, Florida	$16,000,000 PROJECT
Caltrans	Caltrans and Southern California Association of Governments	$ 1,110,000 STUDY
Minnesota Department of Transportation (MnDOT)	MnDOT and Metropolitan Council	$ 650,000 STUDY
Colorado Department of Transportation (CDOT)	CDOT and city of Boulder	$ 542,000 STUDY
Oregon Department of Transportation (ODOT)	ODOT and Portland Metro	$ 1,032,000 STUDY
New York Department of Transportation (NYDOT)	NYDOT and New York Thruway Authority	$ 280,000 STUDY
Texas Department of Transportation (TXDOT)	TXDOT and Houston Metro	$ 300,000 STUDY
Caltrans	Caltrans, FHWA, FTA	$ 148,000 STUDY
Technical Support to Project Partners	N/A	$ 828,000
Other *	N/A	$ 263,091
TOTAL:	N/A	$30,613,479

*Includes program support and related research (e.g. parking cash-out, variable toll study, equity study)

Question. What barriers have the projects had to face getting their plans implemented?

Answer. Besides underlying legal and institutional barriers such as legal authority to toll or change tolls, enforcement authority and so on, project partners have typically faced low initial public support when considering congestion pricing pilot project implementation. This is understandable considering congestion pricing represents a new concept in travel demand management and is a significant departure from traditional user charge programs. Proposals to charge motorists to drive on what have traditionally been free highways, or increasing bridge tolls during congested periods have initially been met with significant resistance. One of the key lessons learned during the first four years of pilot program experience is that garnering the local public and political support necessary to realize the potential efficiency advantages of congestion pricing requires the concept to be introduced gradually as part of a process that includes substantial public participation in the design and evaluation of potential projects.

In recognition of this critical component, FHWA is supporting the kinds of pre-project activities necessary to promote understanding of the objectives of congestion pricing and lay the necessary groundwork for possible future implementation. Emphasis in the pre-project phase is being placed on the development of public-involvement programs and on activities designed to overcome institutional barriers to congestion pricing. This strategy allocates a small portion of Pilot Program funds to nurture the development of market pricing experiments in areas showing the most promise for the future implementation of congestion pricing projects. For example, the Minnesota Department of Transportation (MnDOT), as part of its FHWA Pre-Project Study, conducted a major public outreach program which included various focus group meetings, "opinion leader" interviews, and market research. Results revealed that citizens were initially unsure of whether congestion pricing would be an effective strategy to manage congestion and were skeptical that any revenues generated from variable tolling of roadways would not be used for transportation improvements. But, in some cases, when the concept was explained thoroughly along with its objectives, and questions about uses of the finances were answered, public opposition to the concept decreased.

The MnDOT used the results of this public outreach research in its attempts to develop public-private toll facility proposals within the State. Specifically, in July, 1995, MnDOT issued a request for proposals (RFP) to the private sector for the design, development, financing and operation of toll facilities within the State. As part of the RFP, MnDOT advised proposers to acquaint themselves with local needs, desires and goals regarding transportation and to give special attention to the steps required to garner and maintain local support. As a result, a proposal was submitted for a congestion pricing demonstration project which met the State's technical, financial, and public outreach criteria because the private entity had first approached a local community to query them about their congestion problems and explaining the concept of congestion pricing as a solution. The local community responded favorably to the concept and the project is well on its way toward implementation.

Question. The Committee directed the FHWA to complete a major portion of the cost allocation study before completing Phase III of the truck-size and weight study. How was this accomplished?

Answer. Both the TS&W and HCA Studies are still underway. Work on the two studies is being closely coordinated with the same office within FHWA managing contract work on both studies. Meetings on one study often will include discussions of issues related to the other study. For instance in developing analytical tools used in the cost allocation study to estimate infrastructure cost responsibility, needs for information on impacts of TS&W policy options on infrastructure costs have been explicitly considered. Where the same or similar data are required for the two studies, we make sure that data are consistent and that unique data needs for one study are recognized in data collection activities for the other study. The HCA Study is scheduled to be completed in September 1996 while the TS&W study is scheduled to be completed in December 1996, with coordination between the two studies occurring on a daily basis.

INTERNATIONAL ACTIVITIES

Question. We understand that FHWA paid for about 10 people, mostly FHWA employees, to conduct a tour of speed management practices in several different countries. What was the cost of this trip? What was learned? Exactly how many people went on this trip? Why so many? Why couldn't most of the information gathered be obtained from telephone discussions or from reviewing literature that each of these countries might have forwarded to the FHWA?

Answer. In April 1995 the Speed Management International Technology Scanning Review was undertaken over a two week period which included visits to four countries. The team included a total of ten members and a report writer (Total 11). Three of these members were from FHWA and the other members were from: the National Highway and Traffic Safety Administration; Minnesota and New Hampshire DOTs; the City of Charleston, SC; Maryland State Police; Arizona

Department of Public Safety, Michigan State University, and a consultant. The total cost for this study was approximately $110,000. This includes travel for all team members, logistics and technical coordination, and preparation of the final report.

The team members:

- Observed the successful application of traffic calming (speed humps, roundabouts, lane narrowing, etc.) in residential areas to restrict vehicle speeds is used in most countries.
- Observed the effective use of photo radar that has been widely implemented in all countries visited.
- Met with officials abroad to discuss their safety data and how they address related issues.
- Observed what systems are being applied to meet the need for public education on safety issues on a long-term basis. Many of the countries visited make highway and traffic safety a part of their elementary and high school curriculum.
- Observed what other countries are doing to set realistic speed limits to match the roadway design and area characteristics. Speed limits that are set too low will not be obeyed.
- Observed the positive results in other countries obtained from using variable speed limits. Speed limits and warning displays that can be varied to match traffic and environmental conditions, including fog, have been in use in many countries for over 30 years.

The information collected during this scanning review has been valuable as a demonstration project utilizing radar/video interphase technology since such a project is proposed in Maryland for a section of the Capital Beltway. Another result of this scanning review is that red light running equipment and other such technical devices are being considered as part of a pilot project in Charleston, South Carolina. The City of Charleston is also working with several local neighborhoods to assist in implementing "traffic calming techniques" which were observed abroad during this review. The final report for this study will be available in March 1996.

While some limited information may have been obtained from telephone conversations, the vast majority of the material as well as the opportunity to observe speed management and enforcement practices in operation could not be replaced by phone conversations or mailings of printed reports. The opportunity to meet with a number of people in each country and have face-to-face give-and-take discussions was invaluable.

In addition, a good deal of the information and ideas we obtained was in various stages of implementation and not yet available in printed form.

Perhaps the most valuable benefit of these studies are the professional contacts and relationships which develop. In many cases, these contacts form the basis for long-term professional relationships which greatly promotes technology transfer. These initial contacts often broaden to encompass even larger technology sharing initiatives. This type of interaction and flow of information cannot be replaced by phone calls or printed material.

Question. What similar foreign trips do you have planned for FY 1997? What is the total amount of funding planned for FY 1997 for international Scanning trips? Out of which accounts? Compare the amount of these planned expenditures with FY 1996 and FY 1995 outlays.

Answer. The FHWA is planning four international Scanning studies of this type in fiscal year 1997. The Scanning Study Program budget for fiscal year 1997 is approximately $450,000. It will be funded through a separate GOE line item in the DOT's annual budget submission. Planned studies include:

-Review of Repair/Rehabilitation of Bridges Using Fiber-Reinforced Composite Materials;
-Review of Transport Agency Organization and Management;
-Review of Asian Bridge Structures; and
-Review of Safety Audits (Improved Traffic/Roadway Safety.

This program is a well established initiative which enjoys the respect of a large segment of the domestic highway community. Since Section 6005 funding is being re-prioritized as a part of the next reauthorization process, the FHWA believes this program warrants separate line item funding. For both FY 1995 and FY 1996, the Scanning Study Program budget was approximately $450,000.

Question. Please bring us up to date on border technology exchange program. Please identify the amount of FY 1995, FY 1996 and planned FY 1997 ISTEA, GOE, and Section 6005 monies allocated for this.

Answer. The FHWA anticipated the increased need to coordinate infrastructure planning and development as well as technology exchange between U.S. and Mexican border states and developed the Border Technology Exchange Program (BTEP). This program creates opportunities for transportation officials in the border regions in the U.S. and Mexico to improve the planning, design, construction, and operation of land transportation facilities.

The BTEP started as a pilot project in 1994 and was greatly expanded in 1995. Program activities now encompass plans for training courses, personnel exchanges, technology demonstrations, and other activities that will enhance the technical and institutional processes on a binational State-to-State level. The southwestern State DOTs are also working together to develop programs important to the entire border region so that multi-State resources can be harnessed for border wide programs. Additionally, the FHWA is working with U.S. and Canadian border States and provinces to enhance border transportation planning and technology exchange.

Funding for 1995 was approximately $500,000 in Section 6005 funds. Program funding for fiscal year 1996 is $400,000 in Section 6005 funds. The amount of funding for 1996 was reduced due to the Congressional rescission of ISTEA funds. Planned funding for this program in FY 1997 is $478,000 in GOE funds.

Question. How much did you spend in FY 1995 and are you planning to spend in FY 1996 on all FHWA initiatives regarding the Republic of South Africa? Please provide a detailed breakdown of these expenses.

Answer. The total amount of funding allocated in fiscal years 1995 and 1996 is approximately $1,300,000. This is for technology exchange and transfer as well as education and training. We are including a detailed copy of the work plan for the South Africa Program.

Question. How do these activities benefit the United States?

Answer. The FHWA's involvement in South Africa was initiated as the result of the discussions between President Mandela and President Clinton for the U.S. to provide support for the new democracy in South Africa. The specific idea of cooperation between the FHWA and the South African Department of Transportation is part of a U.S. Government wide effort. FHWA's cooperation with RSADOT was established in 1995. The FHWA believes that the success of this program warrants the establishment of a separate line item for funding. U.S. Embassy officials in South Africa have indicated that this is one of the most successful cooperative programs underway between U.S. and South African counterparts. This is not a new program, but a redirected program source.

The FHWA's activities in South Africa are based on three goals:

1) To transfer information and technology between both nations;

2) To promote U.S. industry in South Africa and throughout southern Africa; and
3) To cooperate with the RSADOT to strengthen the transition to a post apartheid, democratic governing system by jointly developing road demonstration projects, training programs, and seminars for rural townships.

South Africa offers a unique opportunity for FHWA to support the transfer of advanced information and technology while promoting U.S. industry in South Africa and throughout sub-Sahara Africa. The FHWA believes its efforts have already facilitated contracts for U.S. firms in South Africa. The benefit of these expenditures is that these countries receive information concerning U.S. transportation technology and practices which will allow them to more effectively construct and manage their transportation systems. This has an added benefit in that these countries frequently develop a preference for U.S. standards and equipment. This fits into the FHWA's overall strategy of promoting U.S. industry abroad.

The FHWA is cooperating with RSADOT in the establishment of technology exchange centers in South Africa as well as other countries of the sub-Sahara. These Centers will transfer technology and serve as a base for promoting private sector goods and services from the US and from within South Africa itself, throughout the country as well as to the other sub-Sahara countries. RSADOT has already established a technology exchange center in RSADOT Headquarters in Pretoria which will serve as a Regional Center serving South Africa and the other countries of the sub-Sahara. Establishing this Technology Transfer center has created a long term opportunity for the FHWA to support the transfer of advanced information and technology while promoting U.S. industry throughout this part of the world.

While South Africa has many rural roads constructed of gravel/dirt, including some in poor condition, the overall highway system is impressive and is comprised of high quality roads. In many ways, parts of this system are similar to our Interstate highway system. While the South African's design and construction techniques are largely unknown in the U.S., they have an international reputation which is based on advanced technologies and practices in concrete and asphalt materials; pavement technology; low volume road construction, and innovative construction financing and construction phasing. This makes the RSADOT an excellent partner for technology exchange activities. The FHWA is learning and gaining from the South Africans, they are not simply learning from the FHWA. In fact, it has been recommended that

South African pavement technology be tested in the U.S. to determine if it will perform as well as in their country. If the South African pavement design performs as well in the U.S. as in South Africa, there could be millions of dollars of cost savings for U.S.

The FHWA's cooperative program with South Africa's Department of Transport has strong support from the U.S. Department of State. Personnel at the U.S. Embassy in Pretoria have indicated that this program also has the support of other South Africa government Departments, including their Department of Finance. Although not included as part of the Binational Commission's activities at this time, it has been expressed that FHWA's program has been one of the most successful in delivering a product which is a true exchange of information with both departments benefitting.

Question. How much will be spent in FY 1997 on this program and from which accounts? What quantitative evidence do you have that this program has promoted the purchase of U.S. products/technologies in the Republic of South Africa and throughout Africa? Is this a critical need?

Answer. The projected cost for the FHWA South Africa Program is $400,000 in fiscal year 1997 and $400,000 in fiscal year 1998. We are planning for FHWA's South Africa Program to be a five year program with it carrying through 1999. This Program will be funded through a specific GOE line item in the DOT's budget submission.

This is certainly a difficult question to respond to for two reasons: 1) The FHWA's South Africa Program has only been in existence for one year; and 2) In that one year, the FHWA has succeeded in conducting a broad review of the South African's highways, technology, construction opportunities, and future transportation plans. With that information, the FHWA has only started to implement its plan for facilitating the involvement of interested U.S. private sector firms in South African construction projects. The FHWA can already claim one success. A U.S. firm was recently awarded a $100,000 contract for transportation planning services.

Nonetheless, in a very short time, the FHWA can claim it has helped establish a foothold for U.S. business in South Africa. The South Africans have a clear preference for U.S. technology and are seeking greater involvement of U.S. firms in all aspects of their highway program. Indeed, the Chief Director of Roads for South Africa recently indicated that South Africa would like to boost the participation of U.S. firms in a wide variety of transportation projects. With this type of encouragement and the FHWA's facilitation, U.S. businesses certainly have a bright future in South Africa's transportation sector.

Question. Please compare the amount of FHWA funds allocated to the Republic of South Africa to that allocated to other countries.

Answer. The funding level for the South Africa program is comparable with funding levels for the FHWA's other international program. The FHWA's Russia Program is budgeted at $400,000 per year. The FHWA is also working with the Pan American Institute of Highways (a Latin and South American program) which has a program budget of $400,000 for fiscal year 1996. FHWA is cooperatively working with Finland on a technology transfer project with the Baltic countries of Estonia, Latvia, and Lithuania. The 1996 Program with these three countries was approximately $80,000. Finally, FHWA is cooperating with Mexico and Canada on a border technology exchange program, the 1996 program is approximately $400,000; which supports the numerous other NAFTA-related activities of the FHWA.

Question. What are the benefits to the United States of each of these allocations to foreign entities?

Answer. The benefit of these expenditures is that these countries receive information concerning U.S. transportation technology and practices which will allow them to more effectively construct and manage their transportation systems, thus indirectly supporting the U.S. foreign policy of encouraging economic development of newly independent and developing countries. This has an added benefit in that the countries so involved tend to develop a preference for U.S. standards and equipment. This fits into the FHWA's overall strategy of promoting U.S. industry abroad.

Question. Why does the Republic of South Africa receive such a large share of these FHWA funds?

Answer. Comparatively, the FHWA does not provide a larger share of funding for this program than for its other international initiatives. We believe that South Africa offers a unique opportunity to support the transfer of advanced information and technology while promoting U.S. industry in South Africa and throughout the sub-Sahara Africa. Already, we believe our efforts have facilitated contracts for U.S. firms in South Africa.

OMC RESEARCH

Question. On January 18, 1995, the National Transportation Safety Board (NTSB) issued a study on factors that affect fatigue in heavy truck accidents.

That study found that 58 percent of single-vehicle truck accidents studied (62 of 107), where the driver survived, were fatigue related. NTSB has now called on the Federal Highway Administration to:

(1) issue a rulemaking within two years to revise hours of service (8 hours of continuous sleep after 10 hours of driving); and

(2) require automated and tamper-proof recording devices (computerized logs) to catch truckers who exceed hours-of-service regulations.

--Which aspects of your current FY 1996 and planned FY 1997 fatigue study will provide information useful in conducting rulemaking to each of the NTSB recommendations mentioned above?

--In your FY 1997 budget, do you plan to conduct any research to examine another issue raised by NTSB, namely truck driver compensation, and whether it has any effect on hours-of-service violations, crashes or fatigue? Would this research be worthwhile? Have you done any related research on this subject in the past?

Answer. As NTSB itself points out, the 58 percent figure from its study should not be interpreted as an estimate of the *incidence* of fatigue in single-vehicle truck crashes since the study intentionally selected crashes with characteristics indicative of a high risk of driver fatigue.

An Advance Notice of Proposed Rulemaking (ANPRM) on Commercial Motor Vehicle (CMV) driver hours of service (HOS) is expected to be published in July. The ANPRM will address more than 50 specific questions relating to CMV driver HOS, including the critical issues of maximum continuous on-duty time (currently 10 hours) and minimum off-duty time (currently 8 hours).

The ANPRM will also raise the issue of on-board recorders. FHWA believes that these devices will eventually become important tools to monitor commercial motor vehicle drivers' hours of service. However, we believe that the benefits and practicality of on-board recorders must be firmly established by scientific research before they can be mandated for industry use. Accordingly, the FHWA has engaged the University of Michigan Transportation Research Institute (UMTRI) to study the applicability of on-board recorders to motor carrier operations. UMTRI will assess currently available equipment and analyze the costs and benefits associated with their installation and use. This project is expected to be completed later this calendar year.

More importantly the FHWA believes that, ultimately, a performance-based approach geared toward driver proficiency provides a much stronger potential solution to ensuring driver alertness than will on-board recorders *per se*. Several research efforts underway by both FHWA and NHTSA address this opportunity and the HOS ANPRM will address the applicability of performance-based approaches to ensure driver alertness, such as continuous driver status/performance monitoring.

In addition to the study of on-board recorders, FHWA is currently conducting a study with the Walter Reed Army Institute of Research to determine the effects of different amounts of daily sleep on driving and other human performance. This study should be completed in late 1997.

As the above description shows, the FHWA has underway a large and diverse research program addressing many different driver fatigue issues. However, the FHWA has conducted no studies on driver compensation and no data are currently available to allow a correlation to be drawn between pay policies and driver fatigue. By means of the forthcoming ANPRM on driver fatigue and hours of service, we will be asking for information to shed light on this issue.

Question. What are the major conclusions of your baseline fatigue study?

Answer. The results of, and conclusions to be drawn from, the Driver Fatigue and Alertness Study are currently under review.

The conclusions will focus on similarities and differences among measured changes in driving performance; drivers' physiological and psychological state; and drivers' subjective outlook related to driving time and on-duty time. They will also discuss the influence of circadian rhythms on driver alertness and will compare the effects of different schedules on drivers' ability to obtain sleep, and the quantity and quality of sleep obtained.

Question. What did you learn after about five years of intensive research on driver fatigue? Please prepare a table estimating the amount of funds spent on fatigue related research for each of the last five years.

Answer. The results from the Driver Fatigue and Alertness Study will provide us with findings on several topics:

They will provide a comparison among four broad types of driving schedules, and will document measurable changes in driving performance, physiological and psychological measures, and drivers' subjective outlook related to driving and on-duty time.

They will quantify the relative values of diverse measures of driving performance and physiological functions related to fatigue. They will help us to answer several questions which will aid in the development of ITS technologies and devices, such as what kinds of measures are most valuable; are driving or physiological measures better?

They will provide much clearer information than has been available before on the influence of circadian rhythms on driver alertness. Among other things the study will document the relative influences of time of day, change in starting time over several days, and time on task (driving).

Finally, the findings will provide better-quantified information on amounts of sleep obtained and alertness levels maintained during driving periods. It will help us to compare the effects of different schedules on drivers' ability to obtain sleep and the quantity and quality of sleep obtained. It will also be one of the first studies to clearly document the use of naps.

The following chart describes spending between FY 1992 through FY 1996 on research relating to the commercial driver: fatigue and alertness, driver fatigue and stress associated with the operation of multi-trailered combination vehicles, work and rest needs, fitness-for-duty testing, parking needs at rest areas, sleep disorders, and satisfaction of shipper delivery demands. Included in FY 1995 is $500,000 spent by ITS/CVO on fitness-for-duty. In FY 1996, $200,000 was spent by ITS/CVO on psychophysiological device testing and evaluation, and these funds are included in the total for FY 1996. This chart also includes funding for new FY 1996 projects being undertaken for the FHWA by the Trucking Research Institute on: the impact of vehicle loading and unloading on fatigue; fatigue education and training; scheduling practices; fatigue monitoring technologies and other countermeasures; and an international symposium on driver fatigue. In addition, these FY 1996 monies will support research on the impact on fatigue of driver use of sleeper berths and the extent to which fatigue poses a problem for drivers engaged in local/shorthaul operations.

	FY 1992	FY 1993	FY 1994	FY 1995	FY 1996
FATIGUE RELATED RESEARCH	$837,375	$2,283,992	$728,072	$1,684,419	$2,200,000

Question. Please discuss separately the scope and nature of your research on fatigue that you are conducting with the FAA, the Army, and ATA?

Answer. The FHWA is sponsoring research in areas such as fitness for duty, sleep disorders, physiological assessments of driver alertness, driving-oriented performance evaluations, and the effects of circadian rhythm on alertness. The FHWA intends to incorporate the issues raised here in the formulation of future research questions, as well as in the ongoing zero-base review process.

One of the studies, "Effects of Work-Rest Schedules and Driver Performance," is being performed by the Walter Reed Army Institute of Research. The FHWA, FAA, U.S. Army, and National Institutes of Health are co-funding this study. This study will look at the number of hours, or range of hours, a driver needs to recover from a fatigued condition after operating a commercial motor vehicle. The researchers will (1) monitor sleep/wake cycles from over-the-road and local drivers using wristwatch-size activity monitors; (2) have commercial drivers operate a personal-computer-based driving simulator after different amounts of sleep; and (3) enhance a computer program to predict the alertness of drivers on various work/rest schedules. This work began in the summer of 1994 and is expected to be completed in late 1997.

The driver fatigue research studies that the Trucking Research Institute (TRI) of the American Trucking Associations Foundation is currently performing for the FHWA include the physiological portions of the Driver Fatigue and Alertness Study and a survey and laboratory study of the prevalence of obstructive sleep apnea in commercial motor vehicle drivers. In other FHWA research projects, TRI has recently begun a fatigue education and training program and is planning studies of loading/unloading, scheduling practices and fatigue, technological countermeasures, and driver wellness (emphasizing sleep hygiene).

Question. What were the accomplishments of Phase I of the fitness-for-duty testing study?

Answer. In FY 1993, the FHWA entered into a contract with the Transportation Research Institute to evaluate in-terminal and in-vehicle testing technologies for their ability to accurately and reliably determine the fitness of commercial motor vehicle operators to safely drive their vehicles. Research involved testing 30 commercial vehicle operators on each of 4 cognitive/psychomotor tasks. Twenty drivers took pre-driving tests using three desktop testing platforms. Ten other drivers took twice-daily tests on six miniaturized in-cab testing platforms.

Data were collected on the drivers' test results, driver acceptance of the tasks, the effects of terminal and cab environment on the hardware, and system reliability and maintainability. The data in the final report supported the feasibility of in-cab and in-terminal testing. The on-board computers and their peripherals operated relatively reliably. Most drivers reported that testing was compatible with their schedules, except for detours to stop and test, and was accepted. Generally, the study did not reveal any impediments to in-cab or in-terminal testing.

Question. What are you attempting to do in Phase II of this study? What are the different technologies that you are testing in this project?

Answer. The purpose of Phase II of this study is to perform a more in-depth investigation of using technology to identify commercial driver fitness for duty in vehicles carrying revenue loads and to build upon lessons learned under Phase I. Phase II devices were improved based upon data received in Phase I and are being tested on 30 vehicles as opposed to the five vehicles used in Phase I.

The specific technologies of interest are a combination of a pre-drive test, ***ReadyShift®II*** (RS2), and a continuous fitness-for-duty monitor (a modified video camera used for lane tracking purposes), ***Smart Truk®*** (ST). Both RS2 and ST are supported by the same on-board computer.

Question. Your study of driver fatigue is extremely ambitious and a difficult undertaking. Nevertheless, this Committee has supported it for many years. When will you bring it to completion? How many technical reports have been issued to date as a result of this investment?

Answer. The FHWA appreciates the Committee's continued interest in this complex research study, as well as the Committee's patience as our study team ensures that the findings are properly verified before the work is finished.

The Driver Fatigue and Alertness Study should be completed early this summer. The past several months have been devoted to refining some of the analysis methodologies, as recommended by the Office of Motor Carrier's Peer Review panel on driver fatigue in the spring of 1995. The initial draft report contained some unexpected findings, but subsequent analysis has indicated that many of these were due to errors in interpretation or instrumentation artifacts.

There is no question that the time and effort ultimately required to perform this research far exceeded the FHWA's and the other participants' expectations. In a study of this complexity, there are many potential areas of conflicting results, and many other areas where a cursory review could produce spurious results. Given the high level of interest expressed by the highway safety and motor carrier industry communities in this work, we know that the extra time we have taken to assure the quality of the data and the analyses significantly enhances the long-term technical value of this project.

Generally, it is not the FHWA's practice to issue "technical reports" on research in progress, and we have not done so here. However, we have made numerous presentations on the study design and data collection methodology at technical conferences, and at trucking industry and safety community meetings. Technical presentations have been made at the Society of Automotive Engineers Truck and Bus Expo (November 1994), the American Society of Civil Engineers Highway Division Conference "Innovations in Highway Safety" (May 1994), the Driver and Vehicle Performance and Simulation Committee of the Transportation Research Board (January 1992, 1993, 1994), the Annual Conference of the Human Factors and Ergonomics Society (October 1993), and three technical conferences in Australia (September 1993). Presentations of a less technical nature have been made to the American Association of Motor Vehicle Administrators (August 1994), the Commercial Vehicle Safety Alliance (1993), the Safety Management Council of the American Trucking Associations (1994), the Driver Fatigue Task Force of the American Trucking Associations Foundation (1990-1994), the Driver Committee of the National Private Truck Council (February 1995), and the Medical Advisory Committee of the International Brotherhood of Teamsters (1993 and 1995). Presentations have also been made to the Department of Transportation Human Factors Coordinating Committee and to staff and Members of the National Transportation Safety Board (most recently in January 1996). We have also briefed staff of several Congressional committees, as well as the staffs of several Members of Congress, at their request.

Question. What specific educational materials have you provided to the trucking industry on driver fatigue? How much did you spend on these materials during each of the last two years?

Answer. As part of its Outreach/Educational initiatives in FY 1995, the OMC co-sponsored with 5 other organizations the publication and distribution of the "Wake Up!" educational brochure, developed by the AAA Foundation. Approximately 50,000 copies were distributed during Road Check '95, an annual roadside enforcement initiative. The OMC's estimated cost for this driver fatigue/alertness initiative was $7,700.

In May 1996, the OMC began a multi-year research project, "Fatigue Outreach: Develop and Disseminate Fatigue Education and Training Programs Throughout the Motor Carrier Industry," with the American Trucking Associations Foundation/Trucking Research Institute (TRI). The projected OMC FY96 funding for this driver alertness outreach effort is $250,000. The TRI developed and distributed "Awake at the Wheel" Public Service Announcements to 1,000 radio stations nationwide for air time starting Memorial Day weekend. In addition, the TRI plans to print and distribute 40,000 copies of the NIH Sleep Apnea brochure to motor carrier officials, safety supervisors, drivers, and other interested parties. The total estimated FHWA cost of this publication is $11,300.

Under a cooperative agreement with the OMC and the TRI, the National Private Truck Council will develop an educational and awareness program regarding health and wellness issues for commercial truck drivers. The goal of this educational/outreach effort is to provide truckers with the tools to make healthy work and lifestyle choices. The estimated FHWA cost of the program is $300,000 over an 18 to 24-month period.

Question. How much have you spent during FY 1995, FY 1996, and planned for FY 1997 to foster intermodalism? Please summarize each of the major contracts and the associated amounts. Exactly what will the Office of Motor Carriers (OMC) do to facilitate improved intermodalism? Why is this a concern of OMC?

Answer. The OMC has invested the following research money in an intermodal project: FY 1994, $250,000; FY 1995, $0; FY 1996, $100,000; FY 1997, $0. The Intermodal Surface Transportation Efficiency Act's Section 6005 Advanced Technology funds paid for this research.

The OMC, supported by other FHWA staff, undertook a study with Cambridge Systematics (CS) and Sydec, Inc., in 1994 to identify and assess barriers to effective intermodal freight transportation. The contractors identified and assessed major impediments, considered useful technologies, and produced practical guidelines for motor carriers, State agencies, and transportation planners concerned with improving freight intermodal movements. The resulting guidelines provide data sources for intermodal transportation planning, an overview of impediments, annotated bibliography, fact sheet, and guidance on Federal aid eligibility.

During FY 1996, CS and Sydec are undertaking detailed case studies of successful intermodal freight operations and developing practical strategies for overcoming the impediments identified earlier. This second phase of the contract will also involve disseminating information about the entire study at industry and planning association meetings. This will conclude the OMC's planned involvement in fostering intermodalism.

Secretary Peña and other transportation officials have recognized that intermodal surface transportation is becoming a major player in the movement of freight in the U.S., growing at double-digit rates. A number of motor carriers have in recent years inaugurated intermodal programs to support their freight business. We expect more to follow. Despite this rapid growth, there still exist many "bottlenecks" to the efficient intermodal movement and transfer of goods. Also, there exists a knowledge gap for many motor carriers and transportation planners which we believe can be filled by documenting successful strategies for overcoming the impediments. This was the motivation for OMC's investment in this research.

In response to Congressional report language accompanying the Department of Transportation Appropriations Act for 1996, the OMC plans no further investment in intermodal research.

Question. Please delineate progress, funding amounts, technological challenges, and outlook for the Operation Respond Project and its role in promoting the safe transportation of hazardous materials by commercial vehicles?

Answer. Progress Operation Respond has demonstrated through their existing emergency response information software the value of direct linkages between carriers and emergency responders for obtaining critical hazardous materials information at the scene of an accident or incident. These linkages improve the safety and efficiency of transportation operations. Operation Respond is implemented in Houston, Atlanta, Laredo and will be in Contra Costa County California. In addition, cooperation with the US Customs Service and the US Border Patrol, DOT will expand Operation Respond along the Southern Border in 1996. We believe this will be a major step forward in intermodal--and interagency-- cooperation. The specific sites will be Otay Mesa, CA, Nogales, AZ, El Paso, McAllen and Brownsville, TX, and their neighboring cities in Mexico. Also, it is getting underway in the Buffalo/Niagra Falls area of New York in cooperation with area motor carriers, railroads and the chemical industry.

Technological Challenges In cooperation with FRA, a Spanish-language version of the Operation Respond software and emergency response information will also be completed and tested in 1996. FHWA and FRA will work closely with our partners in Mexico to enhance the use of these linkages by the motor carriers, the National railroad, brokers, civil protection authorities, and Mexican Customs. Also, Operation Respond will be upgrading and simplifying the software for motor carrier linkages, especially for small carriers.

Funding Amounts The DOT funding for the Operation Respond program for each DOT agency for FY 1995 - 97 is shown below:

	FY 1995	FY 1996	PLANNED 1997
FHWA	$350,000	$190,000	---
FRA	$70,000	$100,000	$100,000
RSPA	$120,000	$100,000	---

Future Safety Roles For the future, a highly urbanized area and heavily industrialized environment will require the highest level of motor carrier and rail safety in the shipment of hazardous materials. This demands a substantial commitment by rail and motor carriers to implement cooperative solutions to hazardous materials safety. Operation Respond is a partial alternative to more expensive hazardous materials tracking systems.

In addition, guidance and training manuals, visual aids and related information are planned for ultimate national dissemination to emergency responders.

Question. Please identify the amounts spent by each of the DOT Administrations (FRA, FHWA, and RSPA) on this project for FY 1995, FY 1996, and planned for FY 1997.

Answer. The DOT funding for the Operation Respond program for each agency DOT agency for FY 1995-97 is shown below:

	FY 1995	FY 1996	PLANNED 1997
FHWA	$350,000	$190,000	---
FRA	$70,000	$100,000	$100,000
RSPA	$120,000	$100,000	---

Question. Please provide the status of the special study being conducted to determine the extent to which shippers and receivers exert pressure on motor carriers to violate hours of service regulations? To whom was the contract awarded to study this problem? How much will the study cost? When do you expect the study to be completed? How much will be spent on this research during FY 1996? During FY 1997?

Answer. In response to the directive in the Senate Report to the FY 1996 Department of Transportation and Related Agencies Appropriations Act, the FHWA engaged the Calspan Corporation to conduct a series of focus groups and in-depth interviews, in order to generate qualitative information about the state of shipper demands on the motor carrier industry and its drivers. A consultant is analyzing data from the covert verification project in an attempt to ascertain the scope of shipper involvement in driver violations of the hours-of-service regulations and what factors are related to these violations. The OMC also is reviewing in-house data sources.

The cost of the initial phase of the study is approximately $115,000 in FY 1996 funds. We anticipate the initial effort will be completed in spring 1997. Based on the results, we will seek to design a quantitative study which details the scope and seriousness of the issue. The FY 1997 cost is undetermined at this time.

Question. In Conference Report 104-286, the conferees directed FHWA to undertake three projects totaling $1,750,000 in FY 1994. Projects were as follows: truck loading and unloading as a possible contribution to driver fatigue; technology to automate commercial vehicle roadside inspections; and guidelines for the inspection and maintenance of wheels and bearings. The Congress identified three additional studies for the implementation in the same fashion with the Transportation Research Institute (TRI) totaling $2,500,000 in FY 1995. Projects were as follows: the use of "smart cards" to facilitate compliance with motor carrier safety rules: medical requirements associated with commercial vehicle operation; and electronic truck and Intermodal information systems. What is the status of each project or comparable or broader projects, including these research areas? What are the expected completion dates of each? What amounts are being spent in FY 1996 and planned for FY 1997 on each research area?

Answer. The information follows:

Loading and Unloading. In March 1996, the FHWA concluded a cooperative agreement with the TRI to undertake a series of studies, including an assessment of commercial driver loading and unloading. Initial planning on the design of this study is underway. As planned, the FHWA will provide TRI $200,000 in FY 1996, and $400,000 in FY 1997.

Automated Roadside Inspection Technology. In 1994, the FHWA released an open-and-competitive Request for Proposal for the Automated Roadside Inspection Technology study. The TRI bid on the contract. Calspan Corporation was awarded the contract, based upon its technical and cost proposals. Completed in September 1995, the study determined that visual imaging might be a feasible technology for assessing commercial vehicle braking systems. However, no one technology was found to be able to replace the inspection official in assessing under-vehicle systems and components. At this time, no additional funds are proposed for research on this topic in FY 1996 and FY 1997.

Wheel and Wheel Bearings. The OMC did not undertake the study on Wheel and Wheel Bearings for several reasons: the American Trucking Associations, of which the TRI is a part, had already paid for the development of informational materials addressing this subject and the OMC would have been paying the TRI to distribute a completed document that was already available to motor carriers.

Smart Card. In FY 1995, the FHWA released an open-and-competitive Request for Proposal to perform a study of smart card technologies. The TRI bid on the contract. Based upon its technical and cost proposal, 3G International was awarded the contract. Approximately $880,000 was devoted in FY 1995 to this project. No additional funding is anticipated. By December 1996, we expect to develop 3 to 4 prototypes that will help us address the question of the feasibility of using smart cards to monitor hours of service, as well as assess driver CDL qualifications. A final report on the research is tentatively scheduled for January 1997.

Medical Requirements. In FY 1995, the FHWA issued requests for proposals addressing: biometric identifier technologies that can be used in the Commercial Driver Licensing program; the role of hearing in commercial motor vehicle driver performance and safety; insulin-treated diabetes and driver performance; blood anti-coagulation treatments to evaluate commercial motor vehicle drivers; and a review of State medical infrastructures to determine how well States may be able to assume medical certification requirements as part of their certification of commercial drivers. Contracts were awarded on all proposals. The TRI did not submit a proposal for any medical study. The assessment of drivers taking anti-coagulation treatments was concluded in April 1996. Recommendations were provided to us on the certification of drivers who take such medications. Work on the remaining contracts is continuing, although no additional funds will be needed in FY 1996 and FY 1997 for these projects. Subject to available funds, the OMC has tentatively planned in FY 1997 to begin investing approximately $250,000 annually to support medical advisory panels. They would assist the OMC in obtaining the latest information on medical conditions affecting commercial vehicle operators.

National Electronic Information and Intermodal Freight Planning Information Service. The OMC did not undertake the study in response to further Congressional guidance. The information service project would, in effect, constitute a Federal investment in the economic health and productivity of the industry. It would develop a link for Federal, State and industry staff to a library of information about freight planning, while also providing electronic conferencing and electronic mail services. The Senate had questioned the appropriateness of such investments by the FHWA, in view of the need to apply scarce Federal research dollars to motor carrier safety improvements. In response to the Senate's language, such research was therefore deemed more appropriate for private sector initiation.

NORTH AMERICAN FREE TRADE AGREEMENT (NAFTA)

Question. In order for a Mexican carrier to gain permission to operate beyond the commercial zone, what specific requirements exist? Do you require the carrier to present driver qualification and vehicle maintenance files as part of the application process? If not, why not? Would such a requirement violate NAFTA?

Answer. The current requirements a Mexican motor carrier must meet to receive a license to operate beyond the commercial zone, but within the border States, were published by the then ICC on December 13, 1995. The Mexican applicant must submit an application, form OP-1MX, to the FHWA. This form is very similar to the OP-1 form to be completed by U.S. and Canadian motor carriers applying for operating authority. The carriers are required to submit information on insurance, a safety certification, information on affiliations, information on legal process agents, and other information if the applicant is a household goods mover. In addition, the carrier must sign an oath stating the application is correct and pay a $300 application fee.

However, Secretary Peña announced a delay in the NAFTA implementation schedule on December 18, 1995. The Secretary said that he and Mexico's Secretary of Communications and Transportation (SCT) had agreed to new consultations to address continuing motor carrier safety and security concerns on both sides of the border. On December 18, consistent with the liberalization schedule set forth in NAFTA, the U.S. government began accepting applications from Mexican motor carriers for operations in the U.S. border states. Final disposition of pending applications will be held, however, until the consultations with Mexico related to the safety of Mexican commercial vehicles operating in the United States have been completed.

The Office of Motor Carriers does not require the carrier to present driver qualification and vehicle maintenance files as part of the application process. Under the current procedures established by the former ICC, the motor carrier applicant is to certify that it has access to and is familiar with all applicable U.S. DOT regulations relating to the safe operation of commercial vehicles and the safe transportation of hazardous materials and it will comply with these regulations. The sufficiency of this certification by Mexican carrier applicants has been challenged in International Brotherhood of Teamsters v. Interstate Commerce Commission and United States, No. 95-1603, (D.C. Cir.). We do not believe that imposing such a requirement would violate NAFTA because, in the absence of a recognized safety compliance system which is in place for U.S. and Canadian carriers, additional safety requirements could be established for Mexican carriers.

Question. What threshold must be reached to trigger your revocation of DOT's permission to operate beyond the commercial zone ?

Answer. When the Administration announced a delay in granting permission to Mexican trucks to operate throughout the border states because of safety and security reasons, Mexico's Secretary of Communications and Transportation (SCT) and U.S. DOT Secretary Peña agreed to new consultations to further improve motor carrier safety measures on both sides of the border. Our discussions with Mexico are ongoing. There is no time frame for resolving our safety and security concerns, but we believe that it will take several months to develop and implement a program that will satisfy our need to ascertain that Mexican motor carriers are aware of the requirements of the U.S. regulations and have systems in place to assure compliance.

We believe that there are a number of steps that the U.S. and Mexico can take together that will benefit our motor carriers and their customers while enhancing public safety and security in both countries. They may include: sustaining a decline in the vehicle and driver out-of-service rates for Mexican motor carriers operating in the U.S. commercial zone; deploying Mexican safety inspectors who are consistently and effectively enforcing motor carrier safety regulations, that is inspecting Mexican trucks on their side of the border and correcting safety problems prior to entry into the U.S.; and Mexico adopting additional measures to ensure safety; for example, further harmonizations of standards and safety systems, establishment of safety oversight mechanisms to include improved record keeping and compliance reviews of motor carriers.

Question. Please specify the purpose and break down the total amount of funds to be spent during FY 1996 and FY 1997 on NAFTA-related educational, technical and enforcement activities.

Answer. For FY 1996 and FY 1997, FHWA will spend approximately $1.1 million each year on education, technical assistance and enforcement activities through the Motor Carrier Safety Assistance Program (MCSAP). This amount provides grants to States for increased enforcement through use of local enforcement personnel, conduct of controlled drug deliveries, strike force operations for brake and hours of service violations, training of enforcement officers, purchase of pen base computers and brake dynamometer systems to improve roadside inspections.

The purpose of these expenditures is to address issues at the border using diverse methods to achieve compliance. Training and deploying enforcement officers along the border as well as furnishing them with the necessary tools to do their job will better focus our limited resources to needed areas.

Question. How is FHWA ensuring that the $750,000 of Motor Carrier Safety Assistance Program funds specified for distribution to border States are being used effectively?

Answer. This fiscal year, the FHWA has allocated a total of $1,067,457 in special grants to the border States for compliance and enforcement activities, well beyond the $750,000 earmark. To insure the effective use of these funds, the border States worked together under the auspices of the International Association of Chiefs of Police to prepare a coordinated proposal for the grants. The discussions that took place amongst the border States and FHWA as part of this effort have helped us determine how to best address both the local and national concerns. The activities which are funded under this program provide a more sustained enforcement presence along the border, improve the compliance level of Mexican operations with U.S. requirements, and use technology to facilitate the inspection process and improve the quality of the inspection data.

Further, as with all MCSAP grants, the established grant application review process and ongoing program oversight provided by our Region and Division offices will ensure that all funds are used appropriately and effectively. Upon completion of the project, the States prepare a final report which includes a summary of the activities completed, a summary of any institutional, technical, or data related problems encountered and how they were resolved, and an evaluation of how effective the activities were in promoting implementation of the NAFTA provisions without compromising safety.

Question. Would it be worthwhile to continue the appropriation of these additional funds during fiscal year 1997?

Answer. A specific appropriation of these additional funds is not necessary. The FHWA recognizes that the border States will continue to need additional funding in fiscal year 1997 to address any special problems that may arise as the NAFTA provisions are implemented and to support current programs under development and implementation along the border. We plan to provide approximately the same level of funding from the $85 million request for MCSAP to assist the Northern and Southern border States for this purpose.

Question. Please respond to each of the concerns raised in the February GAO report on NAFTA and motor carrier safety.

Answer. The GAO report provided a "snap shot" view of the enforcement activities in place prior to December 1, 1995. The report contained two primary concerns: the inadequate compliance levels of Mexican trucks crossing the border and the Federal and State governments' readiness to ensure that trucks from Mexico comply with U.S. regulations. Since December 1, the FHWA, in partnership with the States, has initiated activities which ensure that all commercial vehicles operate safely in the U.S. in compliance with all applicable safety requirements.

First and foremost, full time Federal, state, and local safety enforcement officials have been placed at major border crossings, including Customs import lots. All four border States have increased the number of inspectors along the border either by hiring additional inspectors or by realigning existing personnel. Texas has added more than 100 new inspectors to its MCSAP workforce; nearly 36 inspectors have been assigned to border localities. Texas is also training almost 50 additional local officers to place at border locations. Arizona has assigned one permanent officer at each of its two major ports of Nogales and San Luis and 8 roving inspectors to cover other crossings. California has assigned almost 30 personnel at each of its two major commercial ports at Calexico and Otay Mesa and 11 mobile enforcement officers to cover other areas along the border. Also, New Mexico has established several mobile enforcement teams to provide maximum coverage of enforcement responsibilities along its southern border. This effort was coupled with an extensive public information and education program.

This fiscal year, the FHWA has allocated a total of $1,067,457 in special grants to the border States for compliance and enforcement activities, well beyond the $750,000 earmark. The special grants are over and above regular grants levels through the Motor Carrier Safety Assistance Program (MCSAP). Nearly $2 million of these regular grant MCSAP funds awarded to the border States in fiscal year 1996 will be used for enforcement along the border and other activities related to the NAFTA.

We are analyzing inspection activity data to assess the results and impacts of these activities and to determine how successful we are in improving foreign carrier compliance with U.S. requirements. The findings will guide our decisions in determining what adjustments, if any, are necessary. Currently, our data show that the compliance level of Mexican operations has greatly improved since we enhanced our enforcement efforts. More specifically, the out-of-service rate for Mexican trucks crossing the border into the commercial zones has dropped from 59% in December 1995, to a present rate of 44%.

We will continue to work with Mexican government officials to achieve a greater level regulatory compatibility between our countries and develop and implement a program that will satisfy our need to ascertain that Mexican motor carriers are aware of the requirements and are in compliance with their safety obligations.

FEDERAL RAILROAD ADMINISTRATION

QUESTIONS SUBMITTED BY SENATOR HATFIELD

SAFETY PROGRAM EFFECTIVENESS

Question. In light of the serious crashes that occurred earlier this year, how does FRA measure the overall success and effectiveness of its safety program?

Answer. To evaluate the safety program's effectiveness, FRA uses measures which are the agency's Government Performance and Results Act of 1993 goals. These goals include a reduction in the following:

- Number of freight train accidents per million freight train miles.
- Number of railroad passenger fatalities and injuries per billion passenger miles.
- Number of railroad employee fatalities and injuries per million work hours.
- Number of highway-rail grade crossing accidents per an "exposure" index (i.e., annual train miles times trillion highway vehicle miles of travel).
- Number of trespasser fatalities per million train miles times the total U.S. population.
- Number of hazardous material rail car releases per billion hazardous material ton miles.

Overall, FRA's short term performance objective is to reduce by ten percent all rail-related fatalities from 1994 through 1998, using 1993 as a base year. Achievement of this objective will result in a cumulative reduction of about 380 fatalities over the five year period.

Question. Please prepare a table showing a variety of different measures of railroad safety for the last three years and discuss your perception of how FRA affected this record.

Answer. Initial performance results are encouraging. The table below shows FRA's performance measure objectives (under the Government Performance and Results Act of 1993) for the five year period 1994 through 1998. Compared to the 1993 base year, preliminary data for 1995 shows rail-related fatality rates down by 17.8 percent, train accident rates down by 13.9 percent, rail passenger fatality/injury rates down by 7.9 percent, rail employee fatality/injury rates down by 30.3 percent, grade crossing accident rates down by 24.4 percent, and trespasser fatality rates down by 15.8 percent. FRA plays a part in achieving rail safety gains. FRA's regulations establish a level of safety to which all railroads must conform. Highway-rail grade crossing safety and trespass prevention programs, alcohol and drug testing requirements, locomotive engineer certification requirements, improved standards for tank cars, field compliance and partnership efforts directed at a broad range of safety hazards, and participation in joint research--all of these actions and others have driven down the accident and casualty totals, while the freight industry has continued to enjoy a post-Staggers Rail Act of 1980 resurgence, and rail passenger service has grown. FRA foresees additional gains that will advance safety. In addition to roadway worker safety rules, the agency's first negotiated rulemaking, electronically controlled braking, passenger equipment and emergency preparedness, track and structures, and accident reporting rules now under development by the industry will yield major benefits to safety and economic efficiency. In FY 1997, FRA will evaluate whether to initiate rulemaking on positive train control, a technology that could significantly reduce main line train collisions and also reduce frequencies in certain other categories of train accidents.

FRA PERFORMANCE MEASURES
(1994 thru 1998)

	1993 (Base Year)		1994		1995		% Difference	1998 (Goal)
	Number	Rate	Number	Rate	Number	Rate	Rate 1995 Vs. 1993	Number
Rail Related Fatalities[1]	1,279	2.08	1,226	1.87	1,144	1.71	-17.79%	1,151
Train Accidents[2]	2,785	4.54	2,669	4.07	2,618	3.91	-13.88	2,414
Rail Passenger Fatalities/Injuries[3]	617	44.79	502	35.74	565	41.26	-7.88	423
Rail Employee Fatalities/ Injuries[4]	15,762	30.33	13,111	25.28	10,795	21.15	-30.27	12,927
Grade Crossing Accidents[5]	4,892	3.80	4,979	3.22	4,631	2.87	-24.47	4,377
Trespasser Fatalities[6]	523	3.30	529	3.10	493	2.78	-15.76	494
Rail Hazardous Material Releases[7]	1,154	17.12	1,157	14.66	1,021	12.94	-24.42	1,110

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[1] Total rail related fatalities per million train miles.

[2] Number of train accidents per million train miles.

[3] Combined passenger fatalities and injuries per billion passenger miles.

[4] Combined employee fatalities and injuries per million work hours.

[5] Highway rail grade crossing accidents per train miles times annual highway vehicle miles traveled.

[6] Trespasser fatalities per million train miles times total U.S. population.

[7] Number of rail cars that release hazardous material per billion hazardous material ton miles.

FIELD OFFICE CLOSURES

Question. What progress has FRA made in reducing the number of its field safety offices? Can any cost savings be realized during FY 1997?

Answer: Seven field offices have been closed during Phase I of FRA's telecommuting program. In addition, the Oklahoma City, Oklahoma, field office is now a "shared" office with another Government agency. Additional closures will be forthcoming. Savings in costs of leased space of over $80,000 will be realized in FY 1997.

TRANSIT OPERATIONS

Question. What has FRA done during the last year to assist safety officials working for State or local governments dealing with transit operations?

Answer. FRA's regulations do not apply to transit operations unless they are conducted over trackage considered as being part of the general railroad system of transportation. FRA maintains a close working relationship with the Federal Transit Administration (FTA) at both the headquarters and regional level for the purpose of assisting State and local governments with questions concerning transit operations.

LOCOMOTIVE ENGINEERS - EDUCATION/TRAINING

Question. The Committee has previously directed that FRA allocate a grant or contract to an entity with extensive experience in the education and training of locomotive engineers for the development of training videos and other educational materials for various subjects. Please inform us of your progress in the development and distribution of these training materials.

Answer. Administrator Molitoris signed a grant agreement with the Brotherhood of Locomotive Engineers (BLE) Education and Training Department on April 21, 1995, to develop training videos and other educational materials for the safety training of locomotive engineers. The FRA agreed to provide $350,000 of the total project cost of $706,730. The BLE agreed to develop, produce and disseminate a four-module training program, including a manual, a video and multi-media training program, and review and evaluation materials, on Locomotive Inspection, Safety Task Force Training, Locomotive Engineer Certification and Decertification, and Hours of Service Act. The Hours of Service module has been completed and distributed. The Locomotive Inspection module is expected to be completed by the end of July. A script has been written for the Locomotive Engineer Certification/Decertification module and is under review. Conceptualization for the Safety Task Force module is complete, and script writing and filming will occur in the near future. The entire project is expected to be competed in May, 1997.

RULEMAKING BACKLOG

Question. In recent testimony before Congress, Administrator Molitoris stated that there are 39 regulatory actions in backlog and that failing to complete these regulations poses a safety concern. Please provide a detailed listing of these current and planned actions. What steps is FRA taking to reduce the backlog? What is your planned schedule to address each of these requirements? When will the backlog be completely eliminated? What are the top five priorities in rulemaking?

Answer. FRA has a very aggressive regulatory agenda because of past congressional mandates and emerging safety needs identified by the National Transportation Safety Board and the FRA. A substantial workload associated with important reports to the Congress also must be handled by the same staff. Following is an Overview of the Railroad Safety Regulatory Program and Standards-Related Partnership Efforts which details FRA's current and planned actions.

FRA's five highest priority regulatory initiatives are:

1. Roadway Worker Safety
2. Power Brakes (Revision)
3. Track Safety Standards (Revision)
4. Passenger Equipment Safety Standards
5. Emergency Preparedness Standards for Passenger Service

It is not correct to characterize every item on FRA's regulatory agenda as "backlogged." Under that definition, an item is in backlog status the minute FRA decides to do a rule or Congress imposes a mandate for a rule. The items referred to in the Administrator's testimony constituted the entire FRA regulatory agenda. Only two rules (power brake and track) are actually late, based on statutory due dates.

The power brake and track rulemakings have been referred to the newly created Railroad Safety Advisory Committee (RSAC), which is made up of representatives of all affected interests. The committee will make consensus recommendations to FRA on regulatory matters. FRA hopes this consensus approach will shorten the time necessary to do the initial research and reduce the time necessary to analyze and respond to comments made on rule proposals. FRA, the Department, and the Office of Management and Budget will make every effort to reduce their review times on these consensus-based rules.

Overview of the Railroad Safety Regulatory Program and Standards-Related Partnership Efforts

June 17, 1996

Legend:

ANPRM	**Advance Notice of Proposed Rulemaking**
Italics	*Indicates project has been identified for development through the Railroad Safety Advisory Committee or a similar forum for collaborative rulemaking*
NPRM	**Notice of Proposed Rulemaking**
RSAC	**Railroad Safety Advisory Committee**

GENERAL

Accident/Incident Reporting

Summary: The Rail Safety Enforcement and Review Act of 1992 barred FRA from adjusting the monetary threshold for reporting of train accident (presently $6,300) until the methodology is revised. In addition, FRA identified the need to comprehensively revise these regulations, which had not be revised since 1974.

Deadline: The report of the Committee of Conference on the Department of Transportation and Related Agencies Appropriation Act, 1996, directs FRA to issue a final rule in this proceeding by 6/1/96.

History: An NPRM was issued 8/19/94, followed by public hearings and written comment. A public regulatory conference was convened 1/30-2/3/95 in an effort to resolve outstanding issues. A notice of decision to issue a supplemental NPRM was published 7/3/95, but has recently been withdrawn..

Status: Final rule issued 5/30/96; to be published 6/18/96.

Regulatory Reinvention

Summary: In response to the President's call for regulatory review, elimination and reinvention, FRA is undertaking several actions to repeal obsolete regulations and simplify agency processes that affect external customers. Major elements of this effort are included in regulatory revision efforts described below under other headings. In addition, FRA will repeal or make less frequent certain reporting requirements and streamline the handling of routine waivers and other approvals.

Status: Interim final rule amendments reducing frequency of reporting regarding signal and train control systems (49 CFR Part 233) and simplifying review requirements for certain modifications of signal systems (49 CFR Part 235) issued 5/30/96.

NEC System Safety

Summary: Mixed passenger and freight operations at speeds to 150 mph have not previously been attempted in this country. Through the Northeast Corridor Safety Committee (or successor), FRA intends to develop system safety criteria for this service territory, integrating existing safety measures and identifying any areas of material risk not previously addressed.

Status: Timing of project initiation to be determined.

Positive Train Control (Status Report)

Summary: The Swift Rail Development Act of 1994 required FRA to submit a status report on the implementation of positive train control as a follow-up to the 7/94 Report entitled *Railroad Communications and Train Control.*

Statutory deadline: 12/31/95.

Status: FRA has provided testimony to the committees of jurisdiction reporting the status of efforts to promote implementation of positive train control. FRA is currently preparing the required report, based on partnership efforts with the Union Pacific and Burlington Northern/Santa Fe railroads and work in support of high-speed positive train control systems.

Tourist Railroad Report / *Review of Regulatory Applicability*

Summary: The Swift Rail Development Act of 1994 required FRA to submit a report to the Congress regarding FRA's actions to recognize the unique factors associated with these generally small passenger operations that often utilize historic equipment.

Statutory deadline: 9/30/95.

Status: Report submitted to the Congress 6/10/96. The RSAC authorized formation of a Tourist and Historic Railroads Working Group 4/1/96. The working group is active, having held its initial meeting 6/17-6/18/96. (RSAC Task 96-4)

Passenger Safety Standards

Summary: The Swift Rail Development Act of 1994 required FRA to issue initial passenger safety standards within 3 years and complete standards within 5 years. The agency was authorized to consult with industry parties outside the Federal Advisory Committee Act, making it possible to conduct an informal negotiated rulemaking.

Statutory deadline: 11/2/97 (initial); 11/2/99 (final).

Status: An initial meeting of the Passenger Equipment Safety Working Group (passenger railroads, operating employee organizations, mechanical employee organizations, and representatives of rail passengers) was held on 6/7/95, and the group has been meeting regularly and conducting task force activities since that time. Manufacturer/supplier representatives have been invited to serve as associate members. The working group is active in development of proposed rules for issuance circa 11/96. FRA has prepared an Advance Notice of Proposed Rulemaking indicating the issues under review by the working group, which was published 6/17/96.

Emergency Preparedness Standards for Passenger Service

Summary: The Federal Railroad Safety Authorization Act of 1994 required FRA to issue emergency preparedness standards for passenger service. Initial standards were required within 3 years and complete standards within 5 years. The agency was authorized to consult with industry parties outside the Federal Advisory Committee Act, making it possible to conduct an informal negotiated rulemaking.

Statutory deadline: 11/2/97 (initial); 11/2/99 (final)

Status: An initial meeting of the working group for passenger train emergency preparedness standards was held on 8/8/95. The group met 2/6-7/96 to develop elements of an NPRM and met jointly with the Passenger Equipment Safety Standards Working Group on 3/26/96 to consider related issues, including the implications of Emergency Order No. 20 and recommendations of the National Transportation Safety Board. The working group includes representatives of passenger railroads, operating employee and dispatcher organizations, and rail passenger organizations, and an advisor from the National Transportation Safety Board. The working group has approved draft rule text, and the NPRM will be issued ASAP.

Emergency Order No. 20

Summary: This order deals with the safety of push/pull and electric multiple unit service. The order was issued 2/20/96, and amended 2/29/96. Intercity and commuter passenger railroads were required to adopt operating rules providing for observance of reduced speed where delays are incurred in blocks between distant signals and signals at interlockings or controlled points. Interim system safety plans were required to be filed.

Status: On 3/26/96, the Passenger Equipment Safety Working Group and the Emergency Preparedness Working Group met jointly to consider implementation issues and crossover issues with the two rulemaking proceedings and recent recommendations of the National Transportation Safety Board.

Locomotive Engineer Certification; Miscellaneous Revisions

Summary: The final rule for locomotive engineer certification became effective in 1991, but certain issues were left unresolved. Experience under the rule has raised additional issues.

Status: An interim final rule amendment dealing with agency practice and procedure concerning engineer certification appeals was published 10/12/95. Issues related to procedures on the properties, offenses warranting decertification, periods of decertification, operation of specialized equipment, etc., are pending. Tasking to RSAC expected 10/96

EMPLOYEE SAFETY

Roadway Worker Safety

Summary: In requiring the review of the Track Safety Standards, the Rail Safety Enforcement and Review Act of 1992 required FRA to evaluate the safety of maintenance of way employees. In addition, the Brotherhood of Maintenance of Way Employes and the Brotherhood of Railroad Signalmen petitioned FRA to issue "on-track safety" rules.

Status: FRA published a notice 8/17/94 initiating a formal negotiated rulemaking, and the negotiated rulemaking committee reported a statement of principles 8/95. NPRM published 3/14/96 (61 FR 10528); initial written comments were due 5/13/96. Public hearing was requested; scheduled 7/11/96. The negotiated rulemaking committee will prepare the final rule beginning 7/12/96, taking into consideration comments received. Many railroads and labor organizations implemented the procedures contained in the NPRM for the spring 1996 maintenance season.

Railroad Operating Practices (Blue Signal Protection)

Summary: On 8/16/93, FRA published a final rule permitting one or more utility employees to associate themselves with a train crew for the purpose of performing normal operating functions that require employees to go on, under or between rolling stock, without use of blue signal protection (which is ordinarily appropriate for mechanical duties). During the proceeding it was noted that rules for locomotive engineers working alone were not clearly defined. FRA published a final rule amendment governing single engineers working alone on 3/1/95, but granted a requested suspension of the amendment on 6/9/95 pending development of additional facts.

Status: Awaits consultation with objecting parties to develop additional facts. Candidate for tasking to RSAC 10/96.

Locomotive Crashworthiness and Working Conditions

Summary: The Rail Safety Enforcement and Review Act of 1992 required FRA to conduct a proceeding regarding locomotive crashworthiness and working conditions and to issue regulations or submit a report. Areas for consideration included structural means of preventing harm to crew members in collisions (collision posts, anticlimbers, etc.) and matters related to safety, health and productivity (e.g., noise, sanitation).

Statutory deadline: 3/2/95.

Status: FRA has conducted research, outreach, and a survey of locomotive conditions and has finalized a report to the Congress for early issuance. The report will convey data and information developed by FRA to date, close out those areas of investigation for which further action is not warranted, and define issues that should be pursued further in concert with the industry parties, either for voluntary or regulatory action. Issues will be proposed for tasking to the RSAC after delivery of the report to the Congress.

HIGHWAY-RAIL CROSSING SAFETY

Grade Crossing Signals (Inspection, Testing and Maintenance)

Summary: FRA issued a final rule for inspection, testing and maintenance of automated warning devices 9/30/94, and the rule went into effect 1/1/95. During the initial year, FRA worked with railroads and signal employees to disseminate information, conduct training, and identify any areas of ambiguity or weakness in the standards. At a technical resolution committee (TRC) meeting during the week of 3/13/95 that included participation by railroads, the Brotherhood of Railroad Signalmen, and States, several issues were identified that require clarification or refinement. An interim manual dated 4/14/95 incorporates the findings of the TRC.

Status: Interim final rule amendments scheduled for publication 6/20/96.

Selection of Grade Crossing Automated Warning Devices

Summary: FRA published a Notice of Proposed Rulemaking 3/2/95 and received over 3,000 written comments through 6/14/95.

Status: Further action to be determined.

Locomotive Visibility / Auxiliary Alerting Lights

Summary: In 1991, FRA initiated a new phase of research on locomotive conspicuity in relation to safety at highway-rail crossings. The Amtrak Authorization and Development Act of 1992 mandated that the research be completed and that a regulation be issued to apply alerting lights to locomotives.

Statutory deadline: Final rule by 6/30/95.

Status: FRA published a "grandfathering rule" on 2/3/93 and amendments on 5/13/94. After the research was substantially completed in early summer of 1995, FRA briefed the industry parties on the results, discussed options for regulatory action, and elicited additional information concerning railroads' progress in equipping their fleets. A Notice of Proposed Rulemaking was published on 8/25/95. The AAR and the ASLRA requested a technical conference to perfect the rule for final issuance, and that conference was held 11/28/95. Written comments were due by 12/12/95. Final rule was published 3/6/96. Equipping of locomotive fleet must be completed by 12/31/97, as provided by law.

Audible Warnings at Highway-Rail Crossings (Whistle Bans)

Summary: The Swift Rail Development Act of 1994 required FRA to issue regulations providing for the use of train horns at highway-rail crossings.

Statutory deadline: Final rule 11/2/96 (most hazardous crossings), 11/2/98 (other crossings).

History: This legislative mandate anticipated FRA follow up to Emergency Order No. 15, which addressed local whistle bans on the Florida East Coast Railroad between Jacksonville and Miami. FRA released a report on the national impacts of local whistle bans on 6/1/95 and has conducted an extensive program of public outreach to make communities aware of the forthcoming rulemaking and to seek information on supplementary safety measures that would support allowance of quiet zones in communities sensitive to train horn noise. Contacts have been made with 160+ jurisdictions known to have whistle bans in place. FRA representatives have met with or addressed forums of state and local officials and community groups. Met with AAR/BRS/AAHSTO/FHWA 12/13/95 to address technical specifications for 4-quadrant gates.

Status: Numerous congressional offices have encouraged FRA to continue outreach and data collection, and additional effort is underway to complete data collection and analysis particularly related to Chicago-area commuter lines. FRA has advised the Congress that the deadline for an initial final rule will not be met as a result..

Private Highway-Rail Grade Crossings

Summary: The Secretary's Action Plan for Grade Crossing Safety (6/94) commits FRA to conducting a special safety inquiry on private crossings.

Status: Conducted workshop on possible guidelines 7/93; timing of further action to be determined.

HAZARDOUS MATERIALS

Tank Car Crashworthiness and Retest

Summary: Research and Special Program Administration Dockets HM-175A and HM-201 addressed further improvements in tank car crashworthiness, and adoption of advanced non-destructive testing to improve tank retest procedures, respectively.

Status: Final rules published 9/21/95. Currently engaging in post-regulatory outreach to inform regulated community. Final rule amendments responsive to petitions for reconsideration at Federal Register for publication as of this date.

Train Placement

Summary: FRA is evaluating whether to recommend that the Research and Special Programs Administration publish proposed amendments to the in-train placement requirements for handling rail cars transporting hazardous materials. FRA is reviewing accident/incident data to determine whether the current non-hazardous materials buffer car requirements are still necessary and whether the (as recommended by the National Transportation Safety Board) a buffer car should be required at the rear of each train.

Status: Preparing a Notice of Proposed Rulemaking; timing of issuance to be determined.

New Directions for Rail Hazardous Materials Safety

Summary: FRA and RSPA have recently completed the two major pending rulemakings addressing hazardous materials tank car safety (crashworthiness and tank retests). With completion of these tasks, it is now possible to turn attention to recommendations of the Transportation Research Board regarding the tank car design and construction process. In order to further this work, FRA is joining with its public and private sector partners to define and prioritize short and long-range research programs, identify needs for rulemaking, and assist in development of improved industry standards.

Status: A public workshop was conducted 2/13/96-2/14/96 in Houston, with participation by labor, railroads, tank car owners, and shippers. FRA is seeking means of advancing public/private partnerships for North American tank car safety.

PRE-REGULATORY PROJECTS; MISCELLANEOUS

Hours of Service Electronic Recordkeeping

Current hours of service record keeping uses paper and ink, but a major railroad has been given relief to keep electronic records. Other railroads have expressed interest, and similar waivers will involve similar issues. At FRA's invitation, the AAR has submitted a petition seeking a master waiver for use of electronic record keeping under regulations supporting administration of the hours of service law. If the master waiver is granted and experience is gained, permanent amendments to the recordkeeping and reporting requirements may be proposed. FRA is assisting railroads in developing electronic systems by providing guidance materials.

Remote Control Locomotives

Current regulations contemplate operation of a locomotive exclusively from within the cab, and provision for the safety of the operation is made within that context. FRA is perfecting plans for a test program under which various railroads will utilize remote control of locomotives by engineers working outside the locomotive cab. The test program should yield experience for development of any appropriate regulatory provisions specific to this type of technology and operation.

Train Dispatcher Training

FRA submitted a report to the Congress on 1/5/95 regarding the functions of contemporary train dispatching offices. The report noted that traditional pools of candidates for recruitment of train dispatchers are no longer adequate to the need. In partnership with the American Train Dispatchers Department/BLE (ATDD), FRA identified the need for a model train dispatcher training program.

Amtrak and the ATDD, with the assistance of the Burlington Northern/Santa Fe Railroad and FRA, are currently developing a training program for Amtrak dispatcher candidates. Required competencies and training program elements will be abstracted from this effort for a model program. Consideration may be given to referencing appropriate elements this program in Federal regulations.

Hours of Service Pilot Projects / Fatigue

In the Swift Rail Development Act of 1994, Congress provided FRA with requested authority to approve pilot projects that might vary the hours of duty and rest under the hours of service law to better address issues of fatigue and biological rhythms. FRA has received an initial expression of interest from one Class I railroad and the Brotherhood of Locomotive Engineers and a proposal from a second railroad in partnership with the United Transportation Union. Successful execution of pilot projects could lead to reform of the statute, which was originally enacted in 1907 and last extensively revised as to operating employees in 1969. FRA convened a fatigue symposium 4/4/96 to facilitate an exchange of views and data..

Discolored Wheels

FRA has granted a master waiver of the Freight Car Safety Standards permitting continued use of discolored heat-treated, curved plate wheels, which have superior resistance to thermal abuse. Data gathered under the waiver, together with results of analysis already provided, may support a permanent change in the regulation.

Steam Locomotives

A committee of steam locomotive experts from tourist and historic railroads has sought a partnership with FRA to revise the steam locomotive regulations. Proposed revisions would relieve regulatory burdens while updating and strengthening the technical requirements An FRA team and our railroad partners have conducted initial exploratory conversations, and the Tourist Railway Association has endorsed the project. Identified for possible tasking to the RSAC 7/96; advice to be provided by Tourist & Historic Railroads Working Group.

OTHER STANDARDS-RELATED PARTNERSHIP EFFORTS

TOFC/COFC Securement

Summary: Following a serious accident at Smithfield, N.C., on 5/16/94, FRA formed a partnership with major railroads and labor organizations to evaluate and improve securement of intermodal loads. A report to the Secretary dated 9/15/94 documented the initial results of that effort.

Status: FRA held a meeting on 2/22/95 that focused on an item-by-item discussion of the status and progress made within the industry with respect to the seven recommendations identified in the report to the Secretary. The AAR has established an Intermodal Equipment Handling Task Force that has developed a number of training aids. A follow-up TOFC/COFC loading and securement safety survey will be conducted during 1996.

Event Recorder Next-Generation Performance Standards

Summary: The National Transportation Safety Board has noted the loss of data from event recorders in several accidents due to fire, water and mechanical damage. In issuing final rules for event recorders which became effective 5/5/95, FRA noted the need to provide more refined technical standards. NTSB has proposed performance standards and agreed to serve as co-chair for an industry/government working group that would define appropriate technical standards for next-generation railroad event recorders.

Status: Conducted an initial meeting of a working group comprised of AAR, RPI, and labor, and co-chaired by NTSB and FRA experts, on 12/7/95 to consider development of technical standards. An additional meeting was held 3/20/96. Working group members are tasked with various assignments to develop the pertinent issues. The RSAC may be requested to consider this task to the extent development of technical standards needs to be supported by regulatory change.

Freight Car Safety Standards; Maintenance-of-Way Cars

Summary: Cars not in compliance with the Freight Car Safety Standards may be operated at track speed in revenue trains if they are company-owned, stenciled cars. FRA published an NPRM 3/10/94 to close this loophole. FRA requested the Association of American Railroads to amplify its comments by letter of 12/20/94.

Status: AAR response was received 8/4/95 is under review with further action to be determined through the Railroad Safety Advisory Committee.

Railroad Communications (includ. Radio Standards and Procedures)

Summary: In submitting the required report to the Congress on Railroad Communications and Train Control on 7/13/94, FRA noted the need to revise existing Federal standards for radio communications in concert with railroads and employee representatives.

Status: On 4/1/96, the RSAC accepted the task of preparing an NPRM, including consideration of communication capabilities required in railroad operations. A working group has been formed with initial meeting date set for 6/26-6/28/96 and deadline for submission of recommendation to the full committee of 9/1/96. (RSAC Task 96-3)

Northeast Corridor (NEC) Signal & Train Control

Summary: Amtrak is planning operations to 150 mph on portions of the NEC and is implementing improvements to the automatic train control system that will provide positive stop and continuous speed control capabilities. FRA's Northeast Corridor Safety Committee (NCSC) met 9/20/94 and approved a set of performance criteria for the new system.

Status: Notice of Proposed Order for the new signal and train control system authorizing speeds to 150 miles per hour is being drafted for early issuance. The NCSC will be consulted in finalizing appropriate orders.

SAFETY OF OPERATIONS

Track Safety Standards

Summary: The Rail Safety Enforcement and Review Act of 1992 required FRA to revise the Track Safety Standards, taking into consideration, among other things, the "excepted track" provision. Other prominent issues will include updating the standards to take advantage of research findings for internal rail flaw detection and gage restraint measurement. FRA also proposes to adopt track standards for speeds to 150 miles per hour.

Statutory deadline: Final rule by 9/1/95.

Status: FRA published an ANPRM 11/6/92 and conducted workshops in the period 1/93-3/93. The Railroad Safety Advisory Committee accepted task of preparing an (NPRM) on 4/2/96. Working group is charged with submitting NPRM to full committee by 10/1/96. Working group is actively pursuing this task. (RSAC Task 96-2)

Power Brakes

Summary: The Rail Safety Enforcement and Review Act of 1992 required FRA to revise the power brake regulations. The statute required adoption of requirements for 2-way end-of-train telemetry devices (EOTs) and "standards for dynamic brakes."

Statutory deadlines: Final rule by 12/31/93; 2-way EOTs to be used on trains operating greater than 30 miles per hour or in mountain grade territory to be equipped by 12/31/97.

Status: FRA published an NPRM 9/16/94 and conducted six days of public hearings ending 12/94. Due to strong objections to the NPRM, additional options were requested from passenger interests by 2/27/95 and from freight interests by 4/3/95. Further action is as follows:

1) *Passenger standards revision:* FRA has requested the Passenger Equipment Safety Standards Working Group to develop a second NPRM taking advantage of filings by interested groups. The group met 11/29-12/1/95 for this purpose; as a result, task force elements of the working group have undertaken additional data gathering and drafting duties. The NPRM will be integrated into the larger NPRM for passenger safety scheduled for issuance circa 11/96.

2) *Freight standards revision:* On 4/1/96, the RSAC accepted the task of preparing a second NPRM. A working group has been formed which is required to report a recommended NPRM to the full RSAC by 10/1/96. The working group is actively pursuing this task. (RSAC Task 96-1)

3) **Two-way end-of-train devices:** FRA published notice on 2/21/96 that this issue would be separated from the balance of the freight issues and expedited for completion of a final rule. A public regulatory conference was convened 3/5/96 to explore remaining issues, and written comments were due 4/15/96. As FRA had reemphasized in the notice of 1/17/95 regarding filing of alternatives, FRA will adhere to the statutory schedule, with calls for trains to be equipped by 12/31/97. (Railroads have also agreed to an expedited schedule that will ensure application of this technology well ahead of the statutory deadline.)

Note: On 2/6/96, the Administrator issued Emergency Order No. 18, requiring use by the BNSF of 2-way EOTs or equivalent protection for heavy grade operations over the Cajon Pass.

Bridge Structural Safety

Summary: Following a survey of bridge conditions and railroad inspection practices, FRA determined that regulatory action is not necessary, but that FRA should continue to exercise an oversight role regarding bridge structural safety programs. FRA issued an interim statement of policy 4/27/95, with comments due 6/26/95.

Status: Comments support continued FRA partnership role. Final statement of policy forthcoming ASAP.

Note: On 2/12/96, the Administrator issued Emergency Order No.19, which removed from service a bridge on the Tonawanda Island Railroad in New York State pending necessary structural repairs.

Bridge Displacement Detection Systems (Report)

Summary: The Swift Rail Development Act of 1994 required FRA to submit a report on systems to detect bridge displacement of the type that caused the derailment of the Sunset Limited at Mobile, Alabama, 9/23/94.

Statutory deadline: 6/2/96.

Status: A technical evaluation report was published 6/23/94 and made available to the respective committees. The formal report to Congress is in preparation.

PASSENGER EQUIPMENT STANDARDS

Question. What progress has been made on formulating the new passenger equipment standards required by the 1994 Railroad Safety Act?

Answer. The FRA is working on a comprehensive set of passenger train standards. The effort is being conducted via two FRA-chaired and sponsored groups: Passenger Equipment Safety Working Group; and the Passenger Emergency Preparedness Working Group. An Advance Notice of Proposed Rulemaking for passenger equipment safety was issued June 17 and a Notice of Proposed Rulemaking for passenger emergency preparedness are expected to be published in the Fall, 1996.

POSITIVE TRAIN CONTROL

Question. Please give a realistic assessment of when most of the major railroads will install, in high risk corridors, positive train control systems or automatic train stops to avoid crashes like the New Jersey Transit incident or the more recent tragedy in Silver Spring.

Answer. From a regulatory standpoint, requirements for train control in the United States are presently based exclusively on speed. The speed provisions contained in 49CFR § 236.0 (which require automatic train control, automatic train stop, or cab signals above 79 miles per hour) have remained unchanged since being issued in 1947. Different speeds, both higher and lower, were suggested at the time the order was being considered. During the interim years, there have been recommendations to both raise and lower the speeds. However, train density, or some other attribute, may be an equally important criterion for requiring this technology. FRA has contracted the Volpe National Transportation Systems Center to develop a corridor risk model. This report, due September 1996, will help identify rail corridors and the risk attributes, for which PTC may be indicated.

In addition, FRA is working with railroad management, labor and suppliers in a collaborative effort that does not at this time require a formal regulatory proceeding, but still advances FRA's safety agenda. The Burlington Northern and Union Pacific Railroad are undertaking a joint venture to pilot-test a basic positive train control (PTC) system on their high-density lines in Washington and Oregon. FRA will monitor and support this effort, and the Association of American Railroads will work with the railroads to ensure that the new system will work with other advanced train control systems. However, PTC systems are not yet available in off-the-shelf form, nor is much of the research and development necessary to full implementation completed.

FRA believes that private and public sector efforts can be combined to foster deployment of contemporary PTC systems on high-risk rail corridors by the year 2000. FRA has made PTC a high agency priority. In addition to supporting the BN/UP project with technical analysis, FRA is funding demonstration of high-speed PTC through the states of Michigan and Illinois. During 1997, FRA will initiate a rulemaking on performance criteria for the safety of communication-based train control. In addition, FRA will use the initial results of corridor risk analysis and other information to explore whether a partial or broader mandate for installation of PTC systems is warranted, including consideration of such business benefits as may be capable of clear demonstration in both freight and passenger rail service. Commuter railroads, working through the American Public Transit Association, have agreed to prepare plans for implementation of improved train control (either cab signal technology or communication-based technology) that will provide further specifics for the overall analysis.

OFFICE OF SAFETY - COSTS

Question. Please break down the $51,864,000 requested for Railroad Safety into the following categories: inspector trainee, data collection, grade crossing safety, alcohol and drug testing, overtime, non-mandatory bonuses, training and travel. Please prepare in the form of a table with comparable expenditures for FY 1995 and FY 1996.

Answer. The information follows:

OFFICE OF SAFETY

	FY 1995	FY 1996	FY 1997 Request
1. Inspector Trainees (36 FTEs)	1,524 3/	1,734	1,826
2. FRA training program (7 FTEs)	1,758	1,637	1,734
3. Other Training	44	310	323
4. Data collection	1,365	1,277	1,273
5. Grade Crossing 1/	---	---	---
6. Alcohol/drug testing	500	464	515
7. Overtime	90	88	88
8. Non-mandatory bonuses (cash awards)	24	6	16
9. Travel	4,802 2/	4,436 2/	4,319 2/
10. All other (500 FTEs)	37,773	39,606	41,770
Total	47,880	49,558	51,864

1/ Funding for grade crossing is not tracked in the budget or accounting reports.

2/ Excludes travel included in totals for inspector trainees and FRA training program.

3/ Reflects budgeted amount; trainee costs were not tracked separately.

Question. Please explain the $155,000 increase for inflation and vendors on page 38. Why do you maintain that FRA has no control over these expenses? Were vendors "promised" these increases by FRA in their original contracts with FRA or are these "mandatory" increases subject to the availability of funds?

Answer. Of the $155,000, $72,000 is for inflation. The balance of $83,000 is for services that FRA cannot discontinue or reduce and where costs are not negotiable, such as OST reimbursable agreements and common services agreements such as FAA payroll and computer hardware/software maintenance. These expenses are not contingent upon availability of funds and are based on services or costs dictated by the Department or vendor. Any decrease in these areas will force the Office of Safety to defer safety-related program work to fund these administrative services.

Question. How much was requested, appropriated, and actually spent on the toxicological testing program during each of the last three years?

Answer. The information follows:

TOXICOLOGICAL TESTING
(Dollars in thousands)

FY 1994			FY 1995			FY 1996		
Req.	Plan 1/	Oblig.	Req.	Plan 1/	Oblig.	Req.	Plan 1/	Oblig.
600	490	490	500	500	500	504	464	464

1/ Please note that funds are not specifically appropriated for Toxicological Testing. Funds are appropriated at the account level, with general guidance at the budget activity level. Toxicological testing is a small part of the Safety Headquarters budget activity.

RAILROAD SAFETY ADVISORY COMMITTEE (RSAC)

Question. Please break out in detail the expected costs for the Railroad Safety Advisory Committee. Please specify exactly what supplies and equipment will be necessary and justify in detail any other expenses. If all meetings were held at headquarters, what amount of funding could be saved?

Answer. The expected costs for the Railroad Safety Advisory Committee (RSAC) are itemized as follows:

Travel	$30,000
Contract Services	54,000
Training	20,000
Space & Equipment Rental	21,000
Facilitators	25,000
Interpreter Services	5,000
Equipment, Supplies, Printing, Mailing, etc.	45,000

Travel funds requested ($30,000) are required for invitational travel for state organizational employees who serve as committee, working group and task force members. Their participation in the RSAC process is essential to ensuring representation of interests other than railroad labor and management which are directly affected by FRA's safety regulatory program.

Funds for contractual services ($54,000) are necessary in support of committee, working group and task force activities. These contract services would provide specialized data collection and analyses and other technical and administrative support services which cannot be addressed through in-house staff. Meetings of working groups and task forces will have to accommodate the needs of members in order to elicit continued rail labor and management support and participation in this process. Locations outside of FRA headquarters or regional areas will require support to meet administrative requirements for these meetings. Specialized data collection and analyses will support the work of the task forces.

Funding for training ($20,000) will provide requisite interest-based negotiation training for committee, working group and task force members to ensure effective participation in this consensual regulatory process.

The estimated costs for space and equipment rental ($21,000) are to cover costs for meeting space and associated equipment rental for committee, working group and task force meetings held at locations outside of Washington, D.C. and for meetings held in Washington when DOT and other governmental facilities are not available.

Facilitation funding ($25,000) is required to provide this integral component of successful negotiated rulemaking. The services of in-house facilitators will be utilized whenever possible. However, due to the limited number of in-house facilitators, together with the demand for their services, RSAC will require the use of professional facilitators to avert delay in the negotiated rulemaking process.

Funding for interpreter services ($5,000) is requested to address the requirements of the Federal Advisory Committee Act and the Americans With Disabilities Act.

Funding ($45,000) associated with computer software and hardware, fax machine, mailing costs, supplies in support of meetings, printing, etc. is required to address Federal Advisory Committee Act requirements and to ensure the efficient and effective functioning of the committee, working groups and task forces. Computer software and hardware is necessary to establish and maintain a database to track RSAC activities. A fax machine is essential for notice of meetings, for changes in schedules, and to provide timely exchange of technical and general information. Office supplies are required in support of meetings and general administrative requirements.

There is very limited meeting room space available in the headquarters that will accommodate the number of persons participating in and attending the committee and working group meetings. Demand for use of these rooms by all Departmental modes places constraints on availability. In addition, current environmental difficulties in the headquarters building may restrict use of this space. In-house demand by other governmental agencies severely restricts availability of adequate accommodations at those locations. In order to address technical and logistical concerns, working group and task force meetings will also be conducted at locations outside of Washington, DC. The majority of participants are from locations outside Washington DC.

OFFICE OF SAFETY - PC&B

Question. Please prepare a table showing personnel, compensation, and benefits appropriated and amount actually spent for each of the last three years for the Federal field and headquarters staff.

Answer. The information follows:

OFFICE OF SAFETY
(Dollars in Thousands)

	FY 1994		FY 1995		FY 1996	
	Plan 1/	Actual	Plan 1/	Actual	Plan 1/	Actual
Field	$26,502	$25,904	$27,703	$27,519	$29,711	$29,711
Headquarters	5,879	5,662	6,313	6,230	6,957	6,957
Total	32,381	31,566	34,016	33,749	36,668	36,668

1/ Please note that PC&B costs are not specifically appropriated. Funds are appropriated at the account level with general guidance at the budget activity level and occasionally at the object class level.

The difference between "plan" and "actual" do not represent savings, but rather adjustments based on all funding priorities within the Office of Safety. The Office of Safety often has to slow their hiring process in order to cover non-discretionary costs related to WCF, OST interagency agreements, mid-year rescissions, accident investigations, etc.

SAFETY TRAINING BUDGET

Question. Please break down in detail the amount requested for the training program, estimating the amount of funds spent on Federal versus State personnel. Please compare these expenditures to the allocation in FY 1995 and FY 1996.

Answer. The information is as follows:

(Dollars in Thousands)

	FY 1995	FY 1996 (Estimate)	FY 1997 (Request)
Salaries and Related Expenses Training for Staff	$ 411	$ 450	$ 512
Travel, Supplies, Materials, Contractual Services, Equipment, Etc. for Training Classes	$1,347	$1,187	$1,212
Total	$1,758	$1,637	$1,724
Allocation	$1.759	$1,637	
Expenditures for State personnel	($ 232)	($ 198)	($ 206)

DIVERSITY/CUSTOMER SERVICE TRAINING

Question. How much money was spent for diversity training or customer service training in each of the last three years. How much is planned for similar efforts during FY 1997?

Answer. The Federal Railroad Administration incurred no costs for customer service training in FY 1994-1996. FRA provided this training using in-house resources and through train-the trainer method. No customer service training is planned in FY 1997.

FRA is not planning any diversity training in FY 1997. Costs during the last three years are as follows:

FY 1996	-	$10,000 1/
FY 1995	-	$ 367
FY 1994	-	$ 1,700

1/ For 30 Safety employees.

Question. Please summarize the results of FRA's recently completed training assessment.

Answer. FRA's Field Liaison Staff has not yet performed a thorough analysis of the assessment. A thorough analysis will require data-matching between inspector perceptions of their training needs versus managerial perceptions of inspector training needs. The assessment was extremely comprehensive and this comparison will have to be performed for each question/response.

In addition, FRA's historical inspector task information must be compared against the responses to measure how much emphasis should be placed on each group of tasks. FRA expects to perform this evaluation beginning in mid-August and hopes to publish the results by the end of September.

OFFICE OF SAFETY - CONSULTING SERVICES

Question. Please specify in detail the purposes and amounts of each of the consulting services obtained to support the Office of Safety. Why can't FRA personnel conduct each of these tasks?

Answer. The FRA Drug and Alcohol Program is a broad base program designed to reduce the adverse effects of alcohol and drug abuse in this industry. The FRA resources to accomplish this task are one full-time FTE and occasional part-time personnel in FRA Headquarters, along with approximately 88 Operating Practices field personnel who are tasked to spend approximately 10 percent of their time in this discipline. This investment is not sufficient to professionally complete the mission. Therefore, the following contracts will help accomplish this critical safety mission.

Laboratory contract: One-year base term (Calendar Year 1996) with two one-year options (Calendar Year 1997 and 1998) at a cost of $149,000, $154,000 and $150,000 respectively. The FRA does not have the expertise, equipment, personnel or certifications that are required and provided by this contract. Contract responsibilities include conducting laboratory toxicological testing (whole blood, urine, and post mortem tissue analysis) in support of 49 CFR Part 219 (Post Accident testing).

Laboratory oversight contract: One-year base term (Calendar Year 1996) with two one-year options (Calendar Year 1997 and 1998) at a cost of $120,000, $120,000 and $146,000 respectively. The FRA does not have the expertise that is required and provided by this contract. Contract responsibilities include conducting quarterly reviews and procedural examinations of laboratory toxicological testing (whole blood, urine and post-mortem tissue analysis) in the FRA contract laboratory. Other responsibilities include periodic comprehensive blind proficiency testing of the FRA laboratory to ensure compliance with established test protocols and quality assurance procedures. Adjunct responsibilities include periodic audits of selected railroad and drug programs and performing various technical reviews of FRA drug and alcohol programs.

PARTNERSHIPS/OUTREACH ACTIVITIES

Question. Under the Administrator's leadership, FRA has entered into numerous partnerships and outreach activities with both rail labor and management. How much was spent on these activities during FY 1995, FY 1996, and how much is requested during FY 1997?

Answer. FRA did not request funds for its partnership and outreach activities in FY 1997. Funds were requested in FY 1996 to adopt and fund railroad labor/management/FRA safety training projects. These funds were denied. In 1995, FRA partnered with the Brotherhood of Locomotive Engineers and the Burlington Northern Santa Fe Railroad to develop a video explaining the Hours of Service Law. FRA also worked with the American Short Line Railroad Association to develop a standardized education program for employees and managers of small railroads. FRA did not track costs associated with these projects.

MAJOR INFORMATION SYSTEMS

Question. Please provide FY 1995, FY 1996, and requested FY 1997 expenditures for each of FRA's major information systems.

Answer. FAR has only two major information systems:

(Dollars in Thousands)

	FY 1995	FY 1996	FY 1997
Railroad Safety Information System	1,110	1,115	1,120
Wide/Local Area Network System	2,730	2,072	2,019

The Safety system is funded in the Safety account and included in the base. Costs reflect operations and maintenance (contractor support and computer timesharing). The WAN/LAN costs are allocated to all offices and accounts and are in the base. Costs reflect hardware, software, maintenance and operations.

GRADE CROSSING SAFETY

Question. During the last year, did inspectors meet FRA's goal of participating in at least four Operation Lifesaver related activities? How close to achieving this goal has FRA come? Is this still a goal in FRA?

Answer. The average of "four per year per inspector" in the Region is a guideline or target against which each of the regions can assess their level of commitment. It is not a "goal." During 1995, FRA inspectors made 511 Operation Lifesaver (OL) presentations versus 499 in 1994. These numbers will improve as FRA personnel are trained in accordance with Operation Lifesaver, Inc. recently established "rules" which require presenters to be "certified." Three of FRA's eight Regional Grade Crossing Managers have been Level II certified (meaning they can train and certify other presenters) and certification training of FRA personnel is progressing. The remaining Managers will become Level II certified in the current year. In addition to "presentations," FRA has set up displays promoting crossing safety and trespass prevention programs at conferences of the International Association of Chiefs of Police, the National Sheriffs' Association, the National Fraternal Order of Police, the Transportation Research Board, Lifesavers-13, the Pacific-rim Conference, the USDOT Tech Fair, the USDOT Child Safety Summit, Employee Appreciation Week, and at numerous state and local conferences and fairs.

Question. What progress has been made in reducing the number of injuries and fatalities at highway-rail grade crossings over the last four years?

Answer. In the last four years, the number of deaths at crossings peaked at 626 in 1993. In 1995, the number was nearly 7.3 percent lower. The number of injuries during the same period was highest in 1992 at 1,975 and was 4.1 percent lower in 1995. The following table reflects this data:

Year	Collisions	Deaths	Injuries
1992	4,910	579	1,975
1993	4,892	626	1,837
1994	4,979	615	1,961
1995	4,633	579	1,894

Question. The NHTSA budget proposes $3,000,000 for an initiative to reduce highway-rail grade crossing fatalities. What is FAR's role in this initiative?

Answer. The Highway-Rail Crossing Safety Incentive Grant Program would award $3 million in competitive grants for community-based education and enforcement efforts to improve safety at highway-rail crossings and to reduce trespasser deaths on rail rights-of-way. This problem is multi-modal and this program proposal is the result of a cooperative effort by FAR, FTA, FHWA, OST and NHTSA. It is anticipated that grant applications will be reviewed by a panel composed of representatives from FAR, FTA, FHWA and NHTSA.

Question. How could the railroads play an important role in this DOT initiative?

Answer. The Highway-Rail Crossing Safety Incentive Grant Program is open to any entity (i.e., State, locality, MPO, transit authority, railroad, Community Traffic Safety Program, Operation Lifesaver Committees, etc.) with an interest in crossing safety and trespass prevention. Collaboration among entities is strongly encouraged. Certainly, the amounts of private resources (e.g., from railroads) which are committed in grant applications will be a factor in the Department's review and subsequent approvals.

GRADE CROSSING ACTION PLAN

Question. Please review the status of all actions that the FRA has taken to implement its responsibilities under the Grade Crossing Action Plan.

Answer. FRA has been addressing the following Action Plan initiatives:

I.B. Police Officer Detail: Working with NHTSA, assist FRA's outreach to the law enforcement community by assigning an active duty police officer to FRA's Washington offices. This is on-going. The first officer, from the California Highway Patrol, completed a one-year detail in March 1996. A second officer, from the Passaic County Sheriff's Office (New Jersey), will begin a one-year detail in July.

I.C. Outreach to Judiciary: Working with NHTSA, publish articles in the National Traffic Law Center's newsletter. This is on-going. Columns were included in the Winter 1995 and the Spring 1996.

I.D. Rules of Evidence. Working with the Transportation Research Board, research is being conducted re states' traffic laws and a model for rules of evidence is being drafted. A report is due in August 1996.

I.F. Compilation of State Laws and Regulations on Matters Affecting Highway-Rail Crossings: This project will update a 1983 publication of the same name. The contract is complete and the report is being printed.

I.G. Safety Inquiry: FRA will host an informal meeting re standing rail equipment near crossings. This is planned for late 1996.

II.A. Principal Railroad Lines (PRLs): FRA will define PRLs and promote corridor reviews along defined heavy-use lines. The lines have been defined, and FRA personnel are working with States and railroads to conduct corridor reviews.

II.D. Responsibilities for Selection and Installation: This is a regulatory initiative intended to clarify warning device improvement project responsibilities, railroad versus highway authorities. An NPRM was issued in March 1995. Hearings were held in June 1995, and further action is being considered.

II.E. STOP Signs: Working with FHWA, promote wider application of STOP signs as a traffic control device alternative at highway-rail crossings. In July 1993, FHWA and FRA issued a joint memorandum to field offices promoting a more proactive position regarding STOP Signs. Field personnel are carrying the initiative to State and local highway authorities.

II.G. Crossing Consolidation and Closure Case Studies: In July 1994, FRA published guidelines and strategies for accomplishing crossing consolidations. A second report regarding Options is being drafted.

II.H. Integrated Intermodal Transportation Planning: Working with FHWA, nine meetings were held with MPOs and railroads in Texas, Colorado, Pennsylvania, Missouri, Massachusetts, Washington, California, Georgia and Illinois. These workshops promoted joint coordination of transportation planning initiatives to include railroads and railroad interests.

II.I. Check List: Working with FHWA, develop detailed procedure for corridor reviews. This was completed and distributed to FHWA and FRA field offices in May 1995.

II.K. Vegetation Clearance: Both FHWA and FRA were to address this issue to their respective constituencies. FRA is revising the Track Safety Standards which deal with vegetation on the right-of-way. The Railroad Safety Advisory Committee working group that is developing the notice of proposed rulemaking has been asked to consider standards for removal of vegetation that could obstruct sight distance at crossings. FHWA has sent a memorandum to their field offices encouraging States to include this requirement in their Safety Management System.

II.M. Distribution of Funds: Working with FHWA, develop and propose an improved distribution formula for Section 130 funds. Such a formula has been developed (and subsequently introduced by Senators Lugar and Coats).

III.A. Marketing Materials Plan: Working with NHTSA, FHWA and FTA, develop materials and promote increased public awareness. The ***Always Expect A Train*** campaign resulted and is continuing.

III.C. National and Community Service: Proposals were made to provide support to the volunteer OL State Coordinators through those doing community service under the Service Trust Act of 1993. However, Americorp funding was not sufficient to include this program. No further action is anticipated.

III.D.4. “Trucker on the Train” Program: Working with the American Trucking Associations, Operation Lifesaver, Inc., railroads and the FHWA, develop a program to increase awareness among professional drivers. A “kick-off” was conducted in November 1994.

IV.A. Define Categories: This project will define categories and minimum standards for private crossings. Statistics and comments from a previous safety inquiry are being reviewed.

IV.B. Safety Inquiry: FRA will conduct an informal meeting re standards for certain private crossings. This is planned for late 1996.

IV.C. Locked Gate at Private Crossings: Working with FHWA and Oregon, demonstrate gates with controlled locks at private crossings. Oregon has completed a literature search and is currently considering options.

V.A.1. Research Workshop: A workshop was held in April 1995 to discuss current and projected research needs regarding crossing safety. A report has been published.

V.A.2. Defense Conversion Fair: The DOT Technology Fair held on the Mall served as an introduction for defense firms to industry needs. In addition, FRA has issued a Broad Area Announcement seeking research proposals regarding crossing safety improvements.

V.D.2. Train Horns: Working with the Association of American Railroads, a report was published in April 1995, documenting the impact of whistle bans nationwide. An assessment of wayside horns is in progress.

V.D.4. Locomotive Conspicuity: FRA has developed standards and issued regulations requiring the installation and use of alerting lights on locomotives by December 1997.

V.D.5. The Manual on Uniform Traffic Control Devices (MUTCD): Working with FHWA and FTA, changes have been proposed regarding signing and markings for highways over high-speed rail lines, temporary closure of crossings, a multi-track sign, work zones, etc. A Notice was published in the Federal Register in June 1995. A draft standard for light rail crossings also is being considered.

V.E.1. Automated Video Image Analysis: Efforts in New York and California are underway to investigate the potential for live video monitoring of crossings.

V.F. 1-800 Computer Answering System: A concept and implementation plan have been developed. A work statement is being developed for creation of a two-state automated system for answering and forwarding trouble calls. At least two states have expressed an interest.

V.H. Resource Allocation Procedure: A contractor to FRA is refining and documenting a new formula and procedure.

V.I. The Inventory: Working with FHWA, updating of the Inventory is being promoted to States and railroads. FRA will hold an informal safety inquire regarding the display of the crossing number. FHWA has sent a memorandum to all field offices.

VI.A. Demographic Survey: A review of trespass fatal statistics has been completed and a study effort is progressing. A report is due this year.

VI.B. Trespasser Casualty Reporting: As part of FRA's new proposed incident reporting rules, additional data regarding trespass casualties will be collected.

VI.C. Workshop on Trespass Prevention: A second national workshop was held in Atlanta in November 1995, and has been followed by five regional workshops in Indiana, Florida, California, Texas and New York.

VI.D. Regional Campaigns: A low-cost Public Service Announcement has been developed regarding hazards of trespassing and is being distributed through FRA's regional offices.

VI.E. Model Trespass Prevention Code: A model trespass prevention law, developed after a review of current state laws, was completed in May 1996.

Question. What steps has FRA taken to ensure there is no overlap between the FRA initiatives and those of other agencies?

Answer. Staff of the four DOT surface administrations (FTA, FHWA, NHTSA and FRA) work closely together in progressing the 55 initiatives of the Action Plan. On a quarterly basis, progress is jointly reviewed, and a summary is prepared and distributed to all concerned. In addition, staff of the different administrations often serve as resources for progress reviews of projects facilitated by administrations other than their own.

OPERATION LIFESAVER

Question. Please specify all components of the FRA request that would provide funds to Operation Lifesaver or are to be used to improve grade crossing safety, or to deal with trespasser issues. Please compare these amounts to FY 1995 and FY 1996 expenditures.

Answer. Funds for Operation Lifesaver and other grade crossing safety and trespass prevention issues are planned as follows:

Activity	1995	1996	1997
Public Awareness and Outreach[1]	35,600	45,000	40,000
Operation Lifesaver, Inc.[2]	150,000	300,000	300,000
Information Processing[3]	274,000	298,000	316,000
Research[4]	300,000	1,100,000	2,254,000
Law Enforcement[5]	48,500	30,000	35,000
Trespass Prevention[6]	61,000	60,000	50,000
Analysis of High Profile Crossings[7]		25,000	25,000

Automated 1-800 Problem Calls[8]	40,000	625,000	
Next Generation High-Speed Rail[9]		1,000,000	4,000,000

[1] Includes promotional and audio-visual materials for FRA personnel to use or distribute at conferences, when manning displays or making presentations to schools and community groups. Also includes conference registration and booth fees.

[2] Grants to OLI promote education, prevention and enforcement programs and distribution of materials, warning of hazards at highway-rail crossings and on rail rights-of-way.

[3] Funds from both FRA's Information and safety budgets support the Highway-Rail Crossing Inventory and the crossing module of the Railroad Accident/Incident Reporting System. Processing includes data collection and control, retention and report production.

[4] Research includes freight car and locomotive conspicuity, improved train detection, crossing illumination, improved warning devices, barriers for high-speed rail corridors and safety of high-speed ground transportation.

[5] Support law enforcement outreach and exhibits at national conferences promoting crossing safety and trespass prevention and soliciting police/law enforcement involvement.

[6] Funds support workshops and seminars to heighten awareness among the public, rail industry, law enforcement community, etc. of the need to stem trespassing; support outreach to the judiciary; and the police officer detail to develop an outreach program with the enforcement community.

[7] Analysis of problem of, and alternatives for, high-profile crossings and low-clearance vehicles.

[8] Initial development of an automated 1-800 problem notifcation system was started with FY 1995 funds and will be continued in FY 1996 with research and high-speed rail funds.

[9] Will address impediments posed by grade crossing hazards to the development of next generation high-speed rail.

Question. What are regional grade crossing specialists doing to advance the purposes of Operation Lifesaver? How are these specialists working with the highway safety community and law enforcement officers? What are FRA's future plans in these areas?

Answer. FRA's eight Regional Managers for Highway-Rail Crossing Safety are fully committed to the Operation Lifesaver (OL) program and are working with OL

State Coordinators to insure that program activities stay at levels appropriate to the problem in each state. Each of them has been trained and certified as a Level 1 Presenter, if not a higher level trainer. Each is directed to serve as a resource to Operation Lifesaver's State Coordinators in their region, and to work closely with them in planning educational and enforcement events and activities that will increase highway-rail crossing safety and trespass prevention awareness. They provide State Coordinators with data regarding crossings and accidents which assists in targeting efforts. They coordinate the OL activities of other FRA personnel in each state. They make presentations themselves and provide training for other presenters. They have arranged meetings with law enforcement officials, and they have promoted law enforcement training. They attend state safety and law enforcement meetings, conferences and fairs, often setting up and/or staffing OL displays in cooperation with the state OL coordinators and the local railroads. In summary, FRA's Regional Managers endeavor to focus on and to assist the State Coordinators in areas where their local OL programs are most in need, whether that be organizational (e.g., assisted in revitalizing programs in some states) or by subject area (e.g., enforcement) or geographical. In the future, FAR plans to continue and to increase emphasis on enforcement and corridor programs, hopefully working with State and local officials as well as with the State Coordinators in developing approaches which bring all these together, i.e., enforcement and OL in/along corridors, as a single coordinated package.

SAFETY ASSURANCE AND COMPLIANCE PROGRAM

Question. As part of the Safety Assurance and Compliance Program, FRA has identified 33 major safety concerns and 98 secondary concerns. How does FRA know that these concerns have been properly addressed? What follow up inspection was done regarding each of the 33 major safety concerns? Were these major safety concerns addressed adequately or was follow up enforcement action taken?

Answer. The safety concerns identified by FAR in the Safety Assurance and Compliance Program (SACP) process were transmitted to the various carriers and labor organizations by action plans and discussed during senior management meetings. Draft copies of action plans were provided to carrier and labor representatives for their review and comment prior to the convening of a senior management meeting. Each concern cited in an action plan stated a recommendation for remedial action on the part of the carrier and a time frame for achieving the recommendation. Depending upon the severity of the concern, the time frame could range from immediate action to a target date of over a year. In general, the time frame consisted of a period of less than 120 days. It should be noted that these concerns, to a substantial degree, reflected findings from listening sessions held by FRA with the management and employees of a carrier and labor representatives.

Carriers were requested to provide FRA, for approval, their action plans for addressing specific concerns, including milestones and dates. Upon approval of a carrier's action plan, followup inspections were conducted to ascertain the progress of a carrier in rectifying a concern. These follow-ups were joint ventures and composed of personnel from FRA, the carrier, and labor. The unique features of a concern determined the number of follow up inspections that would be required. Of the 35 concerns shown in the attachment, all have been or are being adequately addressed with one exception: Kansas City Southern and the issue of locomotive daily inspections.

The Kansas City Southern has been requested to revise their action plan to address FAR concerns regarding their procedures for conducting locomotive daily inspections. Their revised plan is due to FRA by the end of June.

SAFETY ASSESSMENTS

Question. For each of the major safety assessments completed to date, please indicate the following: date assessment was completed, date follow up inspection was conducted, results of follow up inspection--whether compliance was achieved or whether enforcement actions were required because of insufficient corrective action taken by the railroad.

Answer. In general, FRA does not keep track of the actual date that a concern has been corrected. Rather, through follow up inspections, FRA monitors the carrier's rate of progress in meeting the overall time frame for a specific concern as stated in their action plan (i.e., 30 days, 60 days, etc.). Follow up inspections may range from a single visit to multiple visits. Also, various teams of inspectors may be assigned to conduct follow up inspections and the composition of these teams tend to vary during the period of time required to alleviate a concern. Findings from follow up inspections are compiled into reports maintained by regional offices Information regarding the latest activity related to a carrier's concern is provided to FAR headquarters through the submission of monthly reports by the regions. When all the concerns of a carrier have been satisfactorily addressed, FRA may formally close out the SACP activity with the carrier.

The SACP represents a continuing program between FRA and a carrier, management and employees, and labor representatives. The close out with a carrier does not imply cessation of FRA activities with that carrier, but rather signals the completion of one stage of the SACP. The partnerships developed between FRA, the carrier, and labor entities serve as the foundation for identifying and addressing future mutual safety concerns. In addition, FRA will continue to perform its inspection and enforcement activities to ensure that carriers are in compliance with federal safety rules and regulations.

Dates that assessments were completed (date of senior management meeting to discuss FAR findings and recommendations with a carrier) follow:

Southern Pacific - February 15, 1995
Iowa Interstate - April 26, 1995
Conrail - May 26, 1995
Kansas City Southern - July 12, 1995
Union Pacific - August 23, 1995
Montana Rail Link - October 11, 1995
CSX Transportation - October 31, 1995
Gateway Western - January 31, 1996

SAFETY INSPECTIONS

Question. Last year, how many miles of railroad track, freight cars, locomotives, and track miles with signal and train control systems were inspected?

Please compare this level of inspection productivity to that achieved during the prior two years.

Answer. The following chart provides the information:

Inspected	1993	1994	1995
Track Miles	348,663	329,019	254,096
Freight Cars	944,069	832,197	670,427
Locomotives	36,235	33,597	27,999
Signal Units	78,803	86,456	51,833
Miles of Signal 1/	---	---	72,046

1 Data not available before 1995. Beginning January 1995, a new inspection system was implemented which captured the beginning and ending mileposts.

INSPECTION AND ENFORCEMENT ACTIVITIES

Question. When compared to 1993 activities, why did FRA in 1995 inspect fewer track miles, freight cars, locomotives, hazardous materials cars, and signal units? Considering that FRA presumably attempted to focus its limited efforts on problems in 1993 and considering the general upward trend in the number of personnel in the field, how do you explain this reduction in the number of units inspected?

Answer. FRA is very proud of the successes of its safety program to date. Total train accidents fell from a peak of 11,277 in 1978 to 2,618 in 1995. However, the data show that continued emphasis on the unit inspection approach is not reducing the number of train accidents fast enough to meet agency performance goals. In response to railroad industry restructuring, the need to address systemic safety problems and new legislative and regulatory requirements, FRA transformed the Federal railroad safety program. During 1994 and 1995, about 20 percent of the agency's resources were diverted from unit inspection duties to the Safety Assurance and Compliance Program (SACP) and the related processes of Railroad Safety Advisory Committee (RSAC), Technical Resolution Committees (TRCs), customer service, and partnerships. The goal is a safety program that is more inclusive of the agency's customers, more fact-based, and ultimately more effective, while also less intrusive, hierarchial, and adversarial.

SACP is a "systems" approach to safety. FRA inspectors evaluate data from routine site-specific inspections to find systemic problems. When systemic problems are uncovered, FRA temporarily suspends unit inspections while the railroad prepares a Safety Action Plan to correct the systemic problem.

RSAC is helping FRA move its regulatory program in a direction that entails greater collaboration with the regulated community in arriving at mutually satisfactory solutions to regulatory issues. With a backlog of over 40 required rulemakings, FRA is a part of the RSAC working groups directly responsible for each proposed rulemaking, thereby ensuring that the interests of the agency, Congress, and the public are represented.

TRCs are established in each technical discipline (track, signal, hazardous materials, equipment, and operating practices) to serve as forums for identification and resolution of inconsistent application, or unanswered questions of policy or law. This process has led to the quick resolution of issues involved in implementing new regulations on testing, inspection, and maintenance of grade crossing signal devices. The process also brings many field personnel into the process of policy formation.

Although SACP and the related processes of RSAC, TRCs, customer service, and partnerships began in 1994, initial performance results are encouraging. Compared to the 1993 base year, FRA's Government Performance and Results Act of 1993 goals, using 1995 data, show rail-related fatality rates down by 17.8 percent, train accident rates down by 13.9 percent, rail passenger fatality/injury rates down by 7.9 percent, rail employee fatality/injury rates down by 30.3 percent, grade crossing accident rates down by 24.5 percent, and trespasser fatality rates down by 15.8 percent.

INSPECTOR TRAINEE PROGRAM

Question. Please provide information regarding the success of the inspector trainee program. Please provide the retention rate for all individuals who have entered this program since its inception. How do you determine whether the retention rate is adequate? How many individuals who entered the inspector trainee program now serve as FRA inspectors in the field? How much of the FY 1997 request pertains to this program. Please compare this amount to the amounts actually spent during each of the last three years.

Answer: The Office of Safety is beginning to receive the full benefits of the inspector trainee program. Benefits to FRA's Safety Assurance and Compliance Program have been rewarding. With the varied and exceptional educational backgrounds, the inspector trainees bring new and creative thinking to complex safety issues. The public and the railroad industry gain significant benefits as the trainees become part of FRA's inspector work force. The input from inspector trainees has been important to evolving FRA's inspection program to a fact-based, cooperative approach to safety.

Since the inception of the FRA inspector trainee program in FY 1991, the retention rate has ranged from a low of 88 percent in FY 1992 to a high of 97 percent in FY 1993 and FY 1996. The retention rate has been well within what is considered acceptable.

Of the 35 inspector trainees currently on board, 12 have qualified as journeyman inspectors and are serving in that capacity. Ten additional trainees are expected to meet the journeyman inspector qualifications within the next year.

The FY 1997 request includes $1.9 million to continue this program. The budgeted amount for FY 1996 is $1.8 million. It was $1.8 million and $1.6 million in FY 1995 and FY 1994 respectively.

INSPECTOR/TRAINEE RETENTION RATES

Question. Please compare the retention rate for FRA inspector trainees versus the retention rate for inspectors recruited from other employers in the railroad industry.

Answer. Since the inception of the FRA inspector trainee program in FY 1991, the retention rate has ranged from a low of 88 percent in FY 1992 to a high of 97 percent in FY 1993 and FY 1997. This compares with a yearly retention rate of around 90 percent for journeyman level inspectors.

OPERATING PRACTICES VIOLATIONS

Question: How does FRA systematically review the operating practices (OP) violations of certain railroads and investigate the training programs for those railroads with an unusually high number of OP violations? Please provide data for the last three fiscal years showing the number of OP defects, OP violations, and OP cases completed.

Answer: FRA maintains a broad statistical data file as a result of input from field inspections and required railroad reporting. Periodic routine reports by categories or inspection discipline are generated from this file. From these reports and other local/regional experience, FRA is able to identify the existence of or trend toward safety-related noncompliance issues by specific railroad. FRA then formulates an action plan that may vary in magnitude from a local inspector/railroad supervisor level to senior FRA and railroad management levels. Through its Safety Assurance and Compliance Program, FRA pursues railroad compliance by initially using cooperative partnerships. However, in the event compliance is not secured through the partnership approach, FRA will use all the punitive enforcement tools at its disposal to gain railroad safety compliance.

The following table presents cumulative data for the three year period, beginning with 1993, regarding Operating Practices violations and defects.

	1993	1994	1995
Violations Reports Submitted	1,013	2,702[1]	2,030[1]
Violations Closed	2,129	1,488	789[2]
Defects Reported	15,466	17,621	34,513[2]

[1] 1994 & 1995 totals reflect Hours of Service and Recordkeeping violation reports concerning the U. S. Appeals Court for the 9th Circuit ruling on "waiting on transportation." The issue was overturned by the U.S. Supreme Court on January 8, 1996. The reports are not being processed as violations.

[2] Preliminary

TANK CAR INSPECTIONS

Question. How many tank cars has the FRA ruled out-of-service over the course of the past year? Please present historical data for the last few years also noting the number of cars inspected and placed out-of-service.

Answer. FRA inspects tank cars for compliance with the Federal Railroad Safety laws and regulations, including the Department of Transportation Hazardous Materials Transportation Regulations. When FRA notes defects, the defect must be corrected prior to movement. In some cases, FRA will authorize the movement of a tank car to a location to effect repairs. The following table shows the number of tank cars that the FRA inspected under the hazardous materials regulations for each of the last three years and the total number of those tank cars that met the Federal safety laws and implementing regulations.

Tank Cars Inspected

Year	Inspected	Meeting Standards	Percent Meeting Standards
1993	80,253	72,784	90.6
1994	85,665	77,783	90.8
1995	77,258	67,133	86.9

The table shows that, on an average, FRA finds a defect on one out of every ten tank cars inspected. The majority of these defects are the result of a missing or incorrect placard, a loose closure on a tank car containing the residue of a hazardous material, and an illegible marking. Once FRA reports the "in-violation" status of a rail car to the rail carrier or shipper, they must repair the defect or ask for an approval to move the car. Although FRA does not rule cars "out of service" under the hazardous materials regulations, noncomplying cars must be repaired or moved under an approval.

Under the Federal Railroad Safety Regulations, cars discovered defective may be moved for repair if a designated railroad official determines that it is safe to do so. If an FRA equipment inspector determines that a freight car is not safe, the car may be removed from service until brought in compliance. Pending a more thorough review of the data, FRA does not believe that tank cars are taken out of service either more or less frequently than other types of freight cars.

SAFETY TRAINING BUDGET

Question. Please prepare a chart of your training budget for each of the last four fiscal years, specifying the amount spent on Federal and State inspectors separately. What are the estimated amounts to be spent during FY 1995 and 1996?

Answer. The information follows:

Fiscal Year	(Dollars in thousands)
1994	1,595
1995	1,758
1996	1,637
1997	1,724

The FRA funded State inspector training follows:1/

Fiscal Year	(Dollars in thousands)
1994	125
1995	232
1996	198
1997	206

1/ Please Note: These amounts reflect only direct costs such as travel and per diem. They do not include curriculum development, instructional staff, facilities, equipment, on-the-job training or informal symposia. Therefore, they are useful for year-to-year comparison only.

SAFETY INSPECTION PROCEDURE/ENFORCEMENT ACTIONS

Question: What has been done since last year to strengthen the systematic inspection procedure to monitor or revisit either rail management or labor employees who receive warning letters from FRA? How many enforcement actions against individuals has FRA taken during each of the last three years? What types of actions were taken?

Answer: FRA has expanded the Safety Assurance and Compliance Program (SACP) to encompass a greater number of railroads in the past year. Through SACP, individual railroads develop cooperative action plans. Since these plans are developed at senior management levels within each railroad, manager or subordinate safety compliance becomes a carrier supported function and greatly reduces the potential for individual liability and the resulting warning letters.

Warning letters constitute either all or part of the punitive action taken on violations identified through complaints or routine inspections. Follow up inspections are scheduled within the parameters of regional priorities and limitations on resource allocation. The reviews focus on railroad compliance regarding the statutory and/or regulatory provisions involved in the initial punitive action. Generally, individual warning letters are issued involving circumstances where conditions can be monitored by FRA without personal visits to the individuals cited.

In 1993, FRA issued one disqualification order, closed five individual civil penalty cases, and issued two headquarters-level warning letters. In 1994, FRA issued one disqualification order and closed six individual civil penalty cases. In 1995, FRA closed (terminated) two disqualification cases, closed four individual civil penalty cases, and one headquarters-level warning letter.

Question: How does the Office of Safety monitor the safety performance of those individuals who FRA formally disqualified from rail service but who have now legally returned to work in safety sensitive jobs? Has FRA followed up on each previously disqualified person? If not, why?

Answer: In the majority of cases, the disqualification is for a specific period of time identified in the Code of Federal Regulations, such as decertification of locomotive engineers. In those cases, the event dictates the period of disqualification and is consistent with the disciplinary procedures employed by railroads. Because seniority, railroad procedures, and other external factors influence the employee's conduct while disqualified, FRA is unaware of disqualified employees performing safety sensitive functions for any railroad. To further guard against this possibility, FRA requires the certified disclosure of an applicant's previous safety conduct prior to employment as an engineer.

Rarely does FRA disqualify an employee for "life." However, in those cases, FRA does not have legislative authority to pursue constant oversight of the disqualified employee to guarantee permanent banishment from safety sensitive positions on other railroads. Rather, FRA informally monitors railroad employment activities through regulations covering new employee drug and alcohol screening, formal training and required testing. It has been FRA's experience that the penalties associated with the violation of the disqualification provisions have been sufficient to preclude abuse by either the railroad or the individual.

ENFORCEMENT ACTIONS/CIVIL PENALTIES

Question: Please prepare a table describing, for each of the last three years, the number of enforcement actions, the amount of civil penaltities and the number of violation reports submitted. What percentage have come from Federal inspectors and what percentage from state inspectors?

Answer. The table follows:

FRA Civil Penalty Enforcement Actions, Fiscal Years 1993-1995

FY	Cases Transmitted	Dollars Assessed	Cases Closed	Dollars Collected
93	1424	$13,923,050	1600	$15,583,915
94	2019	$16,159,250	1525	$7,959,765
95	1447	$10,897,600	1313	$5,230,044

Note: Many cases are closed in years after the year they were transmitted. Accordingly, the cases transmitted and cases closed are largely different groups of cases.

Violation Reports Received, Fiscal Years 1993-1995

FY	From State Inspectors	From Federal Inspectors	Total
93	254	3168	3422
94	398	4651	5049
95	324	3278	3602

Question. FRA works cooperatively with companies not in compliance with regulations to bring them into compliance. How long does FRA work with these companies before penalties are assessed? What is the grace period to come into compliance?

Answer. Specific instances of non-compliance identified by FRA inspectors are required to be corrected immediately (e.g., through repair, replacement, cessation of the operating practice, reduction of train speeds, or other appropriate action consistent with remedial action provided for in the specific regulation or law). Circumstances involving patterns of non-compliance (e.g., as where deteriorating track in a yard gives rise to defects as train operations impose stresses on the track structure) can vary widely. Generally speaking, however, in those cases where FRA works with a carrier to foster compliance involving a pattern of recurring problems, FRA expects a good faith effort to be put forward immediately with substantial compliance accomplished within a reasonable time period.

Question: FRA's civil penalty enforcement program imposed about $15,700,000 a few years ago and about $5,200,000 more recently. Evidently, inspectors are submitting fewer violation reports to headquarters, going from more than 5000 in FY 1994 to 440 during the first 4 months of FY 1996. Please describe the reasons why these numbers are trending downward. Is there any correlation between these numbers and the number of recent accidents, injuries, or fatalities.

Answer: FRA collected $5 million in FY 1995. In the immediately preceding years, much higher amounts were collected because FRA was eliminating an enforcement backlog that had developed in the late 1980's when the legal office was not sufficiently staffed to handle all of the demands for its services.

The number of cases being recommended by the field inspectors has declined significantly since shortly after the Safety Assurance and Compliance Program was announced. The declining number of violation recommendations submitted by the inspectors reflects the emphasis on partnership approaches to solving safety problems. Of course, if the railroads do not follow through on their action plans to improve compliance, FRA will use all the enforcement tools at its disposal, not just civil penalties.

FRA is gravely concerned about accidents of the recent past and has moved quickly to address those that are believed to be pertinent safety issues to prevent those accidents from occurring again. However, regarding the number of violations and fines issued over the past few years, it is important to understand what those numbers mean. **More fines and violations do not mean a safer railroad any more than an increase in speeding citations is an indication that the highways are safer.**

Enforcement activity had been constant for a long time. FRA has been concerned that the increasing trend in penalties and fines of the early 1990's was indicative of increasing occurrence of safety violations. However, the railroad industry is becoming more complex and hence time-consuming for an inspector force that is likely to remain static. FRA is determined to develop more efficient and effective methods to deal with what is perceived to be a disturbing trend. Hence, the Safety Assurance and Compliance Program was developed to allow FRA to focus on and correct systemic issues while providing more efficient use of its resources.

Question: Please explain FRA's policy with respect to the use of civil penalties in cases of serious safety violations. Has FRA achieved the appropriate balance between working cooperatively with industry and making strong enforcement cases against industry? Please explain your rationale.

Answer: FRA does not hesitate to employ civil penalties where serious safety issues are concerned. FRA's Number One Concern is SAFETY. FRA is committed to employ whatever enforcement tool necessary to achieve the level of safety compliance within the industry. While the Safety Assurance and Compliance Program embraces a partnership approach to resolving systemic safety issues, it by no means restricts or commits the safety enforcement remedies to cooperative involvement within the industry.

FRA will not only use civil penalties, but will also employ the more stringent Emergency Order authority when situations warrant, as evidenced by the recent issuance of Emergency Order 20.

Question. FRA has stated that: "Despite increased enforcement as measured by civil penalties assessed in 1991-1993, total train accidents appear to have reached a statistical plateau." What role has the enforcement program had on reaching this statistical plateau?

Answer. Total railroad industry train accidents fell from a peak of 11,277 in 1978 to 2,531 in 1992. Between 1986 and 1995, total train accidents declined 5.2 percent, from 2,761 to 2,618. Between 1987 and 1995, total train accidents declined 1.1 percent, from 2,647 to 2,618. Train accident rate trends subsequent to 1986, a downward trend, imply that continued emphasis on the "unit inspection/penalty" approach to safety enforcement is not reducing the number of train accidents fast enough to meet agency performance goals. To meet these performance goals, the agency is transforming its safety program.

The Safety Assurance and Compliance Program, a systems approach to railroad inspections, and the related Railroad Safety Advisory Committee, Technical Resolution Committees, customer service efforts, and partnerships are replacing the "unit inspection/penalty" approach to safety enforcement. The amount of civil penalties collected [not "assessed"] in 1991-1993 was higher, due to stepped-up efforts to collect assessed penalties for prior years. The amount of civil penalties "assessed" in 1991-1993 was representative of prior year activities. FRA believes that the enforcement program has played an important role in helping improve the train accident statistics since 1978. It is also believed that the use of enforcement tools has induced railroads and hazardous materials shippers to improve compliance over what it would have been in the absence of any enforcement presence. However, FRA thinks that many improvements can be obtained cooperatively without the need for enforcement action, and that, where enforcement action is necessary, it can be better focused on more serious safety problems than previously.

OPERATION RESPOND

Question. What are the costs, benefits and current status of FRA's involvement in the Operation Respond project? Please specify FY 1995, FY 1996, and proposed
FY 1997 funding. When will FRA's involvement be phased out?

Answer. DOT's three-year investment in the Operation Respond program has produced substantial progress and has successfully generated commensurate investments from rail and motor carriers. Through software and training developed by Operation Respond, fire and law enforcement dispatch centers are able to quickly and accurately determine the contents of a hazardous material rail car or truck trailer which is involved in an accident. Currently, there are approximately 60 dispatch centers throughout Texas, Louisiana, California and Georgia that have, or are about to install, this software.

FRA and the participating private sector partners believe that continued DOT financial support for the Operation RESPOND Institute, Inc. is needed through FY 2000. The FRA-FHWA-RSPA partnership plans to continue its joint participation by assisting in continuing research and development improvements and in outreach activities. Additional refinements can extend the software's usefulness and adaptability to other emergency or law enforcement organizations and the Emergency Medical Services (EMS) community Greater participation by more members of the industry also will lead toward voluntary standardization of software displays, reducing training time and error rates for users, and enhancing credibility with the chemical industry. FRA will continue to cooperate to assist Operation Respond to gain acceptance by additional surface transportation carriers.

In FY 1995, FRA's grant agreement for the program include: $53,000 from FRA; $350,000 from FHWA; and $119,977 from RSPA In FY 1996: $53,000 from FRA; $190,000 from FHWA; and $100,000 from RSPA. FRA plans to commit $53,000 to the program in FY 1997.

Question: Will this project continue when Federal support is terminated? How was emergency response improved as a result of this project?

Answer: Increasing private sector support for Operation Respond will assure its continuation as remaining Federal support focuses upon research and system improvements to widen its applicability in the transportation sector. Most fire, police, and EMS vehicles in America soon will have access to, or actually contain, computer-based communication and information systems. Video Display Terminals (VDTs) and other in-vehicle devices already are in widespread use in a number of major cities. DOT intends to use the opportunity to further expand critical communications with rail and motor carriers pioneered by Operation RESPOND to better assist first responders and improve surface transportation safety.

User evaluations to date, while still underway, show that Operation Respond reduces the time needed by first responders to obtain critical information at the accident scene. This is the only system that provides a direct link to the carriers' database for content verification. In addition to Houston, TX responders, fire, police and EMS officials in Buffalo, NY, Atlanta, GA and Contra Costa County, CA, are involved in drills, testing and evaluation of the program. One early conclusion is that the wide variety of local emergency communications networks and mutual aid agreements that exist today support the need for continued research and improvement More work is needed in areas such as communications with intermodal and rail carriers representing different sectors of the industry (such as short line railroads), enhanced software features, and improvements stemming from continued user feedback.

HAZMAT ACCIDENTS/INCIDENTS

Question. Please summarize the probable cause of each of the major HAZMAT- involved accidents/incidents that occurred last year and discuss the adequacy of current FRA regulations regarding these causal factors. Please detail ongoing efforts to address these causal factors.

Answer. In 1995, FRA investigated 14 accidents that involved hazardous materials. Four of these 14 accidents were selected as "Major Accidents" based on the following criteria: (1) An evacuation occurred with a minimum of 500 people evacuated; or (2) an evacuation occurred and there were reported injuries; or (3) an evacuation occurred and there were fatalities. There were no fatalities as a direct result of a hazardous materials release in any of the four accidents.

May 25, 1995: CSX Transportation, Flomaton, Alabama
Summary: On May 25, 1995, CSX freight train No. R521 was stopped in a siding. CSX freight train No. 577 moving at restricted speed (not exceeding 20 mph) around a 3-degree curve entered the siding and struck standing train No. R521. As a result of the collision, two locomotives and five cars of train No. 577 derailed and the rear four cars of train No. R521 derailed. Tank car ACFX 80417, a load of vinyl chloride, was punctured and lost all of its contents. Approximately 150 people were evacuated. The engineer and conductor of train No. 577 received minor injuries and were treated and released. The probable cause of the investigation is pending approval before release; however, the investigation focused on compliance with restricted speed rules. The current regulations (Part 218 - Railroad Operating Practices) are adequate and no revisions are currently planned.

June 18, 1995: Burlington Northern, Miami, Oklahoma
Summary: On June 18, 1995, Burlington Northern freight train No. 15216 derailed 13 cars (20th - 32nd cars). Five of the derailed cars contained hazardous materials and did not lose any product. Approximately 1000 people were evacuated. The probable cause of the accident is pending approval; however, the investigation centered around the possibility of a mechanical defect on a tank car containing Phenol, a Division 6.1 (poisonous material). The current regulations (Part 215 - Railroad Freight Car Safety Standards) are adequate and no revisions are currently planned.

October 25, 1995: Atchison, Topeka and Sante Fe, Shafter, California
Summary: On October 25, 1995, an ATSF freight train moving at approximately 45 mph derailed one locomotive and 29 cars. One of the derailed cars was a tank car containing a non-flammable gas. The tank car was punctured and lost all of its contents. Highway 43 was closed and approximately 200 people were evacuated. Twelve people sought medical attention. The probable cause of the accident is pending approval before release; however, the investigation focused on the possibility of a track defect. The track safety standards are being revised, which will improve detection of certain rail defects.

December 22, 1995: Conrail, Effingham, Illinois
Summary: On December 22, 1995, a westbound CR freight train was stopped on the main track. A following westbound CR freight train struck the standing train and derailed a number of cars onto an adjacent main track. A short time later, an eastbound CR freight train collided with the equipment fouling the main track, derailing six locomotives and 56 cars. Five of the derailed cars contained hazardous

materials and released product. A fire resulted from the spilled diesel fuel, prompting an evacuation of approximately 200 people. Highway 40 was temporarily closed. Three crewmembers died in the second collision (i.e., raking collision) and two were slightly injured. The probable cause of the accident is pending approval before release. The investigation concentrated on compliance with various operating practices. The current regulations are adequate and no revisions are planned.

TARGETING HIGH RISK SHIPPERS

Question. Previously, FRA promised that FRA inspectors would direct adequate focus on high risk HAZMAT shippers. How is this now done? How are high risk shippers identified? How many HAZMAT shipper inspections have been completed during each of the last four fiscal years?

Answer. The Transportation Research Board (TRB), the Government Accounting Office (GAO), and the Office of the Inspector General (OIG) have highlighted the importance for FRA to target regulatory areas having a high potential for noncompliance. For example, in late 1994, TRB forwarded their report *Ensuring Railroad Tank Car Safety* (Special Report 243) to Congress. One of TRB's recommendations explained that "[t]o ensure the most effective use of its [FRA] limited enforcement capabilities, FRA should identify tank car regulatory areas that have high potential for noncompliance and significance to safety." Further, TRB stated: "FRA should determine whether current enforcement efforts adequately address these areas, especially those affecting the quality of tank car construction, maintenance, and repair work, which currently account for a small portion of enforcement activity." Likewise, both the GAO (*DOT Should Better Manage Its Hazardous Materials Program*: 1990) and the OIG (*Report on the FRA Hazardous Materials Program in Regions VII and VIII*: 1994) recommended that FRA increase the number of inspections at shipper locations.

Increasing the number of inspections at tank car facilities, as recommended by TRB, and increasing the number of inspections at shipper facilities, as recommended by both the GAO and OIG, will require a steadfast analysis of all risk factors to ensure a holistically-safe transportation system. Although increasing the number of shipper and tank car facility inspections seems plausible, it requires a decrease in the number of inspections in other key safety areas. FRA is confident that the right inspection-mix can be achieved.

FRA's remedial actions report provides a basic component of FRA's risk-model infrastructure. Data from the remedial actions report will complement FRA's Railroad Accident/Incident Reporting Systems data and, coupled with RSPA's Hazardous Materials Incident data base, FRA will be able to target areas that have the potential for high noncompliance. FRA will have an active shipper risk-modeling program for 1997 with risk factors that assign risk and a breakdown by each state.

Furthermore, to help achieve the right inspection-mix, FRA has outfitted each inspector with a laptop computer with modem capability and has provided the inspectors in hazardous materials with access to the Research and Special Programs Administration's (RSPA) Hazardous Materials Information System. By accessing RSPA's data base, FRA field force can customize incident data for their specific needs and locality (i.e., by sorting and organizing the incident data by several key fields, such as state, city, company, and commodity).

The following table below shows the number of shipper inspections over the last four fiscal years:

Years	Shipper Inspections
1992	7,083
1993	7,550
1994	6,672
1995	3,470[1]

[1] Preliminary

Inspections for 1995 are down from 1994 for several reasons. Compliance is improving and more time is being spent on system assessments. Also, under the Safety Assurance and Compliance Program, field inspectors are trying to work in more cooperative ways.

HAZMAT INSPECTIONS

Question. Please provide data on the number of hazardous materials inspections, number of hazardous materials violations cited, number of hazardous materials defects noted, and the amount of time spent on hazardous materials inspections for each of the last three years.

Answer. The table below identifies the number of hazardous materials inspections, defects, recommended penalty actions (violations), and hours spent for hazardous materials inspection activities for calendar years 1993, 1994, and 1995.

Hazardous Materials Inspection Activities

	Inspections	Defects	Recommended Penalty Actions	Time (Hours)
1993	101,816	11,549	1,658	36,334
1994	107,857	11,657	1,525	37,003
1995	98,083	21,346	1,015	35,000 1/

1/ This is an estimated figure and was determined by calculating the average percentage of time spent versus the number of inspections conducted from the data obtained during the study years of 1992-1994. In an effort to reduce the amount of administrative time being spent by FRA personnel, the FRA ceased collecting "time spent" information, effective calendar year 1995. The data collected during the study years will serve as a baseline for analysis and comparison purposes. Random and periodic collection of this information can be performed for analysis and comparison to the baseline information.

Question. Several years ago the Committee directed FAR to publish in the Code of Federal Regulations the range of penalties that might be expected for violations by rail carriers or rail shippers of the Federal Hazardous Materials Transportation Regulations. What is the status of FAR's response to this directive?

Answer. FAR has completed drafting the hazardous materials penalty guidelines and hopes to issue them in July 1996.

GRADE CROSSING EMERGENCY NOTIFICATION SYSTEM

Question. Section 301 of the 1994 Railroad Safety Act requires the Secretary to conduct a pilot program to demonstrate an emergency notification system using a toll free telephone number for the public to report any malfunctions or other safety problems at railroad-highway grade crossings. What has FRA done to implement this requirement? Please specify amounts of funding that have been allocated to this project for each of the last few years and the amount requested for FY 1997. What remains to be done to complete the congressional directive and how much will this cost?

Answer. The Rail-Highway Crossing Safety Action Plan Support Proposals, released by Secretary of Transportation Federico Peña in June 1994, noted a Texas program which provides a toll free number for public use in reporting malfunctions at crossings. The Plan also noted that a major impediment to more widespread adoption of this "early warning" system is the perceived resource impact, i.e., "Who will answer and forward telephone calls?" The Plan proposed to develop an automated, pc-based computer system to receive, catalogue and forward telephone calls from the concerned "public" regarding problems with specific highway-rail crossing signals. The system will be founded on the U.S. DOT/AAR Inventory and numbering system.

Pursuant to this commitment, the FRA contracted for the development of a concept and system design. The initial focus was on developing a system which would be suitable for application by individual states, i.e., an automated Texas 1-800 system. As this effort progressed, Congress intervened.

The *Swift Rail Development Act of 1994* directs the Secretary of Transportation to:

> ... conduct a pilot program to demonstrate an emergency notification system utilizing a toll free telephone number that the public can use to convey to railroad carriers, either directly or through public safety personnel, information about malfunctions or other safety problems at railroad-highway grade crossings. The pilot program, at a minimum--
>
> (1) shall include railroad-highway grade crossings in at least 2 States;
>
> (2) shall include provisions for public education and awareness of the program; and
>
> (3) shall require information to be posted at the railroad-highway grade crossing describing the emergency notification system and instructions on how to use the system.
>
> The Secretary may, by grant, provide funding for the expense of information signs and public awareness campaigns necessary to demonstrate the notification system.

However, the Act did not appropriate any funds to carry out this mandate.

To accommodate the Congressional mandate, FRA's concept and planning has been adjusted to include all public crossings (and possibly private crossings equipped with automated warning devices), not just those with automatic warning devices, and to include pilot projects in two states.

A reported titled, Conceptual Design and Implementation Plan for an Automated 1-800 Crossing Trouble Report System, has been prepared. The document describes a system that, when implemented, will provide a means for individuals to notify railroads of problems at highway-rail crossings. As described, the system could be implemented either state- or nationwide, and also as a multi-state pilot.

Actual implementation of the Automated 1-800 Crossing Trouble Report System will involve building and maintaining up-to-date databases which contain data from the U.S. DOT/AAR National Highway-Rail Crossing Inventory and contact data consisting of railroad and public safety telephone numbers. Software programs will need to be developed, hardware procured and the system set up and integrated with telecommunications services. In particular, an Interactive Voice Response (IVR) system must be procured and configured to handle automated telephone answering functions and unattended interactions with callers, to capture and process information provided by callers, and to generate and fax "Trouble Reports" to railroads and public safety authorities. Options for supplementing this unattended, automated portion of the system include operating a Clearinghouse or Communications Center to allow callers to speak with live attendants.

A principal component of the Automated 1-800 Crossing Trouble Report System will be the signs that will be posted at the crossings. These signs will display a 1-800 telephone number which individuals can call to report signal malfunctions (or other crossing problems) and will identify the crossing by its DOT/AAR Crossing Identification Number.

A pilot of the Automated 1-800 Crossing Trouble Report System, consisting of two states, initially will be implemented and then evaluated, with findings presented in a Report to Congress. It is anticipated that the pilot then will then be converted into an in-place operational system which will grow into a nationwide system with states gradually being included, at their option. Alternatively, individual states could develop their own systems, resulting in various crossing notification programs that could form loosely a nationwide system.

Funding, or lack thereof, has been a significant hurdle. Three major categories needed to be addressed:

I. Developmental Costs
II. Operating Costs
III. Signs

The largest front-end cost is for signs. The FHWA has agreed that a state can use Section 130 funds for signs at public crossings, at the state's option. Nevertheless, it is a sizable amount (estimated at $135/crossing for two signs, installed, for each crossing).

FRA has structured a package internally to fund developmental and operating costs, at least for the pilots. A mix of funds from Research and Development, ISTEA and safety is anticipated. About $40,000 of FY 1995 funds has been spent to date. About $625,000 more is planned, all of which is from FY 1996 funds.

R&D PUBLICATIONS

Question. For each publication listed on page 81 of the budget justification, please list the NTIS number. If any publications do not have an NTIS number, please explain why.

Answer. The NTIS numbers for the technical reports are listed below. The technical papers do not have NTIS numbers since they were only papers prepared and presented at technical conferences and symposiums.

Report Title	**NTIS Number**
Thermal Effects and Related Safety Issues of Typical Maglev Steel Guideways	96 131354
Human Factors Phase I: Function Analysis and Theoretical Considerations	95 217857
High Speed Passenger Trains in Freight Railroad Corridors: Operations and Safety Considerations	95 251781
Safety of Advanced Braking Concepts for High Speed Ground Transportation Systems: Executive Summary	96 118021
Safety of Advanced Braking Concepts for High Speed Ground Transportation Systems: Technical Descriptions	Not Published Contains Proprietary Data
Analytical Methodology for Safety Validation of Computer Controlled Subsystems Volume 1: State-of-the Art and Assessment of Safety Verification/Validation Methodology	96 109722
Analytical Methodology for Safety Validation of Computer Controlled Subsystems Volume 2: Development of a Safety Validation Methodology	96 109783
Locomotive Crashworthiness: Executive Summary	95 271722
Vol 1: Model Development & Validation	95 271730
Vol 2: Design Concept Generation & Evaluation	95 271 748
Vol 3: Review & Discussion of Freight Locomotive Crashworthiness Concept	95 271755
Vol 4: Additional Freight Locomotive Calculations	95 271763

Investigation of the Effects of Braking System Configuration on Thermal Input of Commuter Car Wheels	In final review
Estimation of Actual Residual Stresses Due to Braking and Contact Loading of Rail Vehicle Wheels	In printing

REIMBURSABLE FUNDS

Question. What is the source of the $2,000,000 in reimbursable funds on page 48 of the budget submission?

Answer. The $2,000,000 breakout is as follows: $500,000 - DOE funds to support hazardous materials training at the Transportation Technology Center; $500,000 - Federal Highway Administration potential work on grade crossing safety; and $1,000,000 - Defense Department quick reaction requirements having national military importance related to rail transportation. These funds are anticipated, based on past reimbursable agreements, and do not necessarily represent the actual reimbursable funds that may be received.

UNOBLIGATED BALANCES

Question. On page 48 of the budget submission, $7,205,000 and $4,334,000 were identified as available unobligated balances at the start of the year. Why is there so much carryover?

Answer. Part of this carryover ($760,000) is for environmental cleanup at the FRA-owned Transportation Technology Center. The State of Colorado has not given final approval to the cleanup efforts to date. Other funds are carried over due to delays in procurement awards because of refinement of technical requirements. In addition, some contracts are negotiated for less that the original estimate. As can be seen, FRA decreased the amount of unobligated balances from the beginning of FY 1995 to the beginning of FY 1996 and it is expected that this trend will continue.

OTHER SERVICES

Question. On page 53 of the budget submission, $4,666,000 was identified for other services in FY 1996. The requested amount drops to $228,000 in FY 1997. Why the large decline? Are these expenses now located in any other part of the budget?

Answer. The FY 1996 estimate includes carryover funds of $4,334,000. This leaves a balance of $332,000 in new budget authority (BA) in FY 1996 as compared to $228,000 in new BA in FY 1997.

R&D PROJECTS

Question. Please break down in detail each of the budget components (Equipment, Operations and Hazardous Materials; Track; Safety of High-Speed Rail) beyond the levels described in the budget submission. Please compare the various budget components to the amount spent in FY 1996 in the same categories.

Answer. The information follows:

FEDERAL RAILROAD ADMINISTRATION
FY 1996-1997 R&D PROJECTS
(Dollars in Thousands)

Program Activity/Project	FY 1996 Enacted	FY 1997 Request
EQUIPMENT/OPERATIONS/HAZARDOUS MATERIALS		
Equipment/Components		
- Locomotive Safety Evaluate, test, and validate locomotive crashworthiness features; assess safety implications of new high traction locomotives	$600	$ 300
- Passenger Car Standards Develop and publish initial dynamic performance standards for conventional rail passenger vehicles	500	800
- Trailer/Container Securement Evaluate existing and new techniques for securing intermodal trailers and containers to rail cars	200	100
- Advanced Braking Continue test and evaluation of new braking systems, such as electro-pneumatic controlled brakes, for freight and passenger operations and publish report on findings	75	150

- Improved Components Inspection System Evaluate advanced inspection and monitoring techniques for components such as wheels to reduce the potential of catastrophic failures	275	675
- Improved Wayside Detection Develop and evaluate improved wayside inspection/detection methods for roller bearings and suspension components	200	200
Operating Practices		
- Stress & Fatigue Evaluate the safety implications of workload stress and fatigue on train dispatchers; evaluate potential strategies for mitigating the effects of fatigue for locomotive engineers	1,460	1,060
- Grade Crossing & Operation Lifesaver Continue support for Operation Lifesaver; continue evaluation of acoustic warning systems and the effects of sight distance on driver behavior at highway-rail grade crossings	600	685
- Dispatcher Training Evaluate training practices for dispatchers	400	200

- Ergonomics of Advanced Train Control Evaluate the human factors safety aspects of advanced train control systems	100	500
- Yard & Terminal Safety Evaluate changes in operating practices in yards and terminals and publish recommendations for safety improvements	150	150
Hazardous Materials		
- NDE Techniques for Tank Cars Develop and validate non-destructive evaluation techniques for inspecting tank car welds and for replacing the hydro test for tank cars	350	350
- Tank Car Acceptance Procedures Evaluate damage tolerance techniques for application to tank car acceptance guidelines	300	300
- Tank Car Damage Assessment Publish results of the initial evaluation of tank car fatigue; analyze and identify tank car critical parts and determine acceptable flaw size for tank car head welds	350	350
Subtotal, Equip/Ops/Hazmat	**5,560**	**5,820**
TRACK/STRUCTURES/TRAIN CONTROL		
Track/Components		
- Investigate Rail Steel Develop new methods for reducing occurrence of fatigue cracks and other failure modes in rail and for improving	800	900

inspection and monitoring protocols		
- Track Buckling Analysis/ Field Test Develop risk-assessment methods to prevent lateral buckling of track due to thermal and vehicle-induced stresses	600	1,050
- Test Operations (FAST) Support Industry/ Government/Supplier cooperative program to measure degradation of track and rolling stock under the influence of very heavy axle loads combined with improved suspension systems	535	535
- Special Trackwork Determine degradation rates and failure modes of track switches and crossing diamonds, and develop improved inspection and maintenance procedures	600	600
- Advanced Track Material Assess strength and durability of timber ties reinforced with fiber-composite wrap	250	250
Inspection-Detection		
- Advanced Inspection Technology Develop advanced inspection techniques and instrumentation for use in detecting accident-prone conditions	650	300
- O&M Government Test Equipment Deploy FRA track-testing vehicle to demonstrate performance-based method of inspecting track strength on mainline and shortline railroads	1,000	1,100

- Track Degradation Evaluate degradation, due to cumulative traffic, of track structures having various types of as-constructed quality levels, and develop pertinent inspection and maintenance strategies	750	800
Track-Train Interaction		
-Track Geometry Studies Determine limiting conditions of track geometry parameters to minimize risk of derailment, and develop new performance-based methods of evaluating track geometry	550	1,150
-Vehicle Track Systems Support Industry/Government cooperative program to investigate safety-related aspects of the performance of the vehicle and track as an integrated system	300	900
Signals/Train Control/Electrification		
- Loss of Shunt Improve reliability of train detection methods for activation of grade-crossing warning devices, and integrate these with train control systems	300	300
- Signal System Safety Studies Develop means for assessing safety of micro-processor-based systems for signals and train control	262	497
- Advanced Train Control Evaluate emerging developments in train control systems and perform tests on individual devices and systems	300	400

- Electrification Safety Develop guidelines for safety issues arising from electrification of railroads for high-speed passenger service	185	185
Subtotal, Track/Structures/ Train Control	**7,082**	**8,967**

SAFETY OF HSGT

HSR Systems

- Train Control & System Operations Evaluate the actual safety performance of prototype high-speed rail positive train control demonstrations; evaluate migration paths for existing train control to advanced systems; evaluate links between communications-based train control and highway intelligent transportation systems (ITS); assess adequacy of track strength under stresses of high cant deficiency (tilt) operations	5,000	1,450
- Grade Crossing Risks/ Infrastructure Develop a driver model to use to improve crossing warning systems; initiate a systems approach to human factors research on the perception and behavioral interface of drivers and pedestrians at grade crossings; complete corridor-based grade crossings	1,425	1,869
- HS Equipment Issues Evaluate the safety of various high-speed rail equipment designs including tilt operations, fire hazard analysis	2,753	1,250

- HS Test Support (TTC) Acquire advanced test support equipment to maintain the safety of the high-speed test track structure at the Transportation Technology Center	0	1,000
Environmental Issues/Impact Analysis	200	600
- Assess noise and electromagnetic fields safety issues for high-speed rail operations		
Maglev Systems	0	1,000
- Partnership in on-going maglev efforts with the Air Force, Navy, and NASA		
Subtotal, Safety of HSGT	9,378	7,169
R&D FACILITIES	400	420
- Perform timely refurbishment or replacement of facilities and equipment at the Transportation Technology Center		
ADMINISTRATION	1,695	2,189
TOTAL, R&D	**24,115**	**24,565**

HUMAN FACTORS PROJECTS

Question. What progress has been made in your human factors program since last year and what new research is planned for FY 1997? Please specify the amounts expended in FY 1996 and planned for FY 1997 on a project by project basis.

Answer. The following table summarizes human factors research project status and costs for FY 1996 and FY 1997.

Project	Cost ($000) FY 1996	Cost ($000) FY 1997	Status
o Stress and Fatigue			
-Enginemen, Phase II	100		Reports expected to be published 7/96.
- Enginemen, Napping Strategies	770	260	To begin late in FY 1996.

- Enginemen, Conrail Demo	200		Budgeted, awaiting details to be worked out.
- Enginemen, Vigilance Monitoring	120	100	Start late FY 1996 to evaluate existing and developing technology
- Hi Speed Operators	285	100	Work initiated on information processing, issue identification.
- Dispatchers	Prior Year	600	Study design and methodology validation initiated with prior year funds. Main study to begin in FY 1997.
o Operating Practices			
- Dispatcher Training	400	105	Multi-phase project initiated in 1996 with prior year funds. FY 1996 funds to be added. Expect completion in 1999.
- Non-accident HazMat Releases	Prior Year		To start in 1996 with prior year funds. Expect completion in 1998.
- Train Make-up	Prior Year		To be completed in 1997.
- Yard & Terminal Safety	Prior Year	150	Multi-phase, multi-year project begun in 1996. Scope definition underway.

o Applied Technology			
- ATCS Evaluation	Prior Year	200	To be initiated in 1996 to evaluate ergonomics of newest locomotive cab displays.
- Operator Displays	200	300	Started in 1996 to develop concepts for cab and dispatcher displays for the more highly automated next generation of railroad operations.
o Grade Crossings			
- Operation Lifesaver	300	300	Continuing safety program. FY 1997 focus on horns, accident causation, driver behavior.
- Research	335	385	

DERAILMENT LIMIT STUDIES

Question. FRA requests $600,000 on page 58 for derailment limit studies in conjunction with the AAR. Were these studies previously funded solely by AAR? If so, should federal funds be used for this activity?

Answer. No, these studies were not previously funded solely by the AAR. These build on the results of completed or currently in progress cooperative research projects. An example is the planned study on Discrete Track Irregularities to evaluate their cumulative effect with respect to derailment risks. One new project, involving railroad bridge safety, is also planned to study the feasibility of application and/or adaptation of existing Non-Destructive Evaluation (NDE) techniques to the safety assessment of railroad bridges. These studies support the FRA's safety mission and require federal funds under the existing cooperative research framework of the Vehicle/Track Systems program. The AAR and the industry contribution in-kind or in cash is expected to be at least equal to the federal share.

MAGLEV SAFETY PROJECTS

Question. Why is it of critical importance that any money be spent during FY 1997 on the safety of maglev? What is the intended use of the funding for this activity? Please specify the activities to be funded and associated amounts. Which, if any, maglev projects are going forward at this time? If no maglev projects are going forward, why is it necessary to research maglev safety issues? How would this research help create a maglev-based rail industry?

Answer. The maglev activities for which FRA is requesting funding in FY 1997 are: (1) cooperative interagency R&D efforts with the Air Force, Navy and NASA; (2) safety studies to enable FRA to perform its mandated role with regard to the safety of those maglev systems presently under development by private companies funded by State; and (3) sustaining low level academic progress in maglev technology. If the FRA is not to lose its capability with respect to this promising new transportation technology, a minimum level of effort is required. FRA has structured a program that will achieve this while sharing its expertise with other agencies who have realized what maglev can do for the performance of their missions. For the Air Force maglev upgrade of the Holloman High-Speed Test Track, which will enable the attainment of Mach 9 and more realistic simulation of weapon-target intercepts, FRA will supply technical expertise while piggybacking on the USAF tests to obtain critical design information for transportation-related maglev. Tests planned include measuring aerodynamic effects and assessment of dynamic stability at high speed. These tests are estimated to cost $300,000, and a dramatic savings in cost will ensue by combining these with tests the Air Force already plans to perform for its own development purposes during the next year or so. Likewise with the U.S. Navy, some $100,000 in hardware and test costs will provide thrust, efficiency and power factor data for electromagnetic propulsion. In the case of NASA, both levitation and propulsion will be assessed at a hardware plus test cost of $230,000. Support for planning, analysis and evaluation of data, primarily at VNTSC and Argonne National Laboratory, will cost $250,000. Another $120,000 is planned for new experiments at MIT and VPI, designed to reduce maglev capital and operating costs. In this way, the important human maglev resources will be maintained at minimum cost and maximum usefulness in anticipation of a startup by the U.S. in a global technology.

The Germans and Japanese are continuing unabated their maglev transportation projects, with a 180 mile Berlin-Hamburg maglev system slated for revenue operation in 2004. It is funded through a $6 billion private public partnership. In the U.S., Florida, Virginia, Maryland, Pennsylvania and New York are supporting maglev projects. Two U.S. maglev developers are receiving funds from the State of Florida. With only the German Transrapid ready for implementation, near term systems perforce will utilize that technology. Without Federal or State support, maglev entrepreneurs cannot attract private financing. In fact, the Florida assistance is contingent on finding an equal share of Federal support. Until now, that Federal share has come from non-DOT sources, diminishing the role of DOT.

ADMINISTRATION INCREASE

Question. Please justify in detail the increase of $132,000 requested on page 60 for administration. How much was spent in the last two years on each of these activities?

Answer. An additional $92,000 is requested for Contractual Services. Of this amount, an increase of $20,000 is for translation services. With the increase in high-speed rail and related safety issues, the FRA R & D Office is often asked about the application of foreign technology in the U.S. As a result, FRA is receiving more information from foreign countries and manufacturers. Most of this information must be translated before it can be disseminated. This funding will support the increased volume of documents being translated through commercial translating services. The remaining $72,000 is needed for the administrative support of FRA On-Site Contracting Officer's Technical Representative (OSCOTR) at DOT's Transportation Technology Center (TTC). This increase is needed to support increased on-site activities due to the track upgrade for the high-speed trainset tests and safety activities related to joint projects with the railroad industry. This funding will provide for clerical assistance, data processing, graphics, video and photography, telephone and other administrative requirements.

Funding is requested ($40,000) to support an automated project management database needed to monitor and track all R & D projects. This project was implemented late in FY 1996. In FY 1997, the project also will provide FRA customers with the capability to conduct secure grant and contract business over the World Wide Web. This system will enhance the management of the R & D program, and is a critical tool in meeting growing program responsibilities, especially with staff decreasing due to downsizing initiatives. An additional $15,000 is requested to procure a new server due to the increasing size of the program, and an additional $25,000 is required for programming support and training of program managers in the use of the system.

FRA EMPLOYEE AT TTC

Question. Why is there a need to increase funds to support the FRA employee at TTC?

Answer. The upcoming upgrade of the Railroad Test Track at TTC to allow for the high-speed testing at 125 miles per hour is a significant construction task requiring frequent coordination meetings between personnel from FRA, AAR, the Volpe Center, and the various contractors. Due to this program and other FRA funded tasks, the FRA employee at TTC will be faced with an increased level of activities in FY 1997. The additional funds requested are for increased clerical staff support and other logistics for the proper monitoring, reporting and execution of program activities.

PROJECT TRACKING SYSTEM FUNDING

Question. Why is $40,000, requested on page 60, needed for a project tracking system? Why can't this function be performed using a commercially available spreadsheet?

Answer. FRA has developed and implemented a project tracking system based on an Oracle client/server database model in FY 1996. While Oracle is a commercial off-the-shelf software package, extensive programming and development support are needed to provide for a user-friendly application that is integrated with the FRA LAN and DAFIS accounting software. The Office of Railroad Development has scores of projects that require extensive tracking. This system will enhance the management of all RDV projects, and is a critical tool in meeting growing program responsibilities, especially with staff decreasing due to downsizing initiatives. A commercially available spreadsheet still needs to be specifically tailored at substantial expense to meet RDV requirements, and still would not have the capability to be as user-friendly or task oriented as an Oracle database.

R&D COST SHARING

Question. What has FRA done since last year to promote additional cost sharing in the research and development program?

Answer. The R&D Office has been meeting with the AAR and the railroad industry (railroads, suppliers, unions) to identify cooperative research projects where two or more entities fund the project.

FRA has developed a partnering agreement with the AAR to coordinate strategic research interests in order to achieve maximum return on research funds invested by each party. During 1996, the AAR will contribute $7.4 million and will obtain industry contributions worth $5.1 million to support research projects at FRA's Transportation Technology Center near Pueblo, Colorado.

Since some of the R&D is at the request of the Office of Safety to support rulemaking, cost sharing with the industry may not be appropriate for those projects.

R&D PROGRAM CASH EQUIVALENTS (NON-FEDERAL)

Question. Please specify cash equivalents (in-kind services or other) and funds obtained from non-Federal sources for each of the subcomponents of the R&D program. Please provide historical comparative data on this subject for each of the last four years.

Answer. The information follows:

Equipment, Operations, and Hazardous Materials

FY	Federal Funds	Non-Federal Funds	Total Funds	Percent Non-Federal
1992	$4,403	$1,101	$ 5,504	20
1993	$5,185	$ 790	$ 5,975	13
1994	$3,290	$1,391	$ 4,681	30
1995	$5,503	$1,800	$ 7,303	25
1996	$5,560	$5,728	$11,288	51

Nearly half of the cost-sharing under this program is the industry's contribution of equipment for the advanced braking project. Other cost sharing includes in-kind contributions of technical expertise and equipment and related shipping costs for test projects. Not included in the above figures are the industry contributions to the Operation Lifesaver program which is co-funded by FRA, FHWA, Amtrak, Association of American Railroads, Railway Progress Institute, and individual railroads.

Track, Structures, and Train Control

FY	Federal Funds	Non-Federal Funds	Total Funds	Percent Non-Federal
1992	$3,800	$5,740	$ 9,540	60
1993	$5,600	$6,283	$11,883	53
1994	$6,650	$5,199	$11,849	44
1995	$9,165	$7,150	$16,315	44
1996	$7,082	$5,747	$12,829	45

Nearly half of the cost-sharing under this program is provided by industry contribution to the Facility for Accelerated Service Test (FAST). Other significant fractions are provided by industry support to the Vehicle Track Systems program (an FRA and Association of American Railroads partnership) and by individual railroad contributions of train crews for test operations of FRA's Gage Restraint Measurement System (GRMS) as well as transportation of FRA's GRMS instrumentation car between test sites on different railroads.

Safety of High-Speed Ground Transportation

FY	Federal Funds	Non-Federal Funds	Total Funds	Percent Non-Federal
1992	$2,979	$ 1,627	$ 4,606	35
1993	$4,500	$ 500	$ 5,000	10
1994	$4,000	$ 90	$ 4,090	2
1995	$3,300	$ 0	$ 3,300	0
1996	$9,378	$2,300	$11,678	20

Cost-sharing under this program prior to FY 1995 was for technical expertise provided in relation to the safety assessment of foreign high-speed rail technologies. In FY 1996, non-federal funds are for the flywheel project.

R&D ADMINISTRATIVE COSTS

Question. Why has the R&D Administrative request increased by $494,000 from the level of $1,695,000 in FY 1996? Please break out these requested increases.

Answer. The increase of $494,000 consists of a net increase of $362,000 comprised of $500,000 in mandatory pay costs and $57,000 for inflation/vendor increases, offset by $77,000 in non-recurring costs and by a savings of $118,000 for the reduction of one FTE, and $132,000 increase for a new program .

The FY 1997 PC&B estimate of $1.678 million is the total needed to fund 19 FTEs (a reduction of one FTE from FY 1996) in the R&D appropriation.

Of the $500,000 in mandatory costs, $74,000 is the true increase in pay costs from FY 1996 to FY 1997 due to the annualization of the FY 1996 comparability and locality pay raises, FY 1997 pay raise, and within-grade and merit pay increases. The remaining balance of $426,000 is needed to restore the reduction made in FY 1996 due to the Department-wide administrative reduction of $25 million. The R&D appropriation did not have sufficient funds in Administration to absorb a $426,000 reduction without reducing PC&B costs. Therefore, in order to avoid a reduction-in-force (RIF) in FY 1996, it was decided that the reduction would be applied to PC&B costs with payroll being supplemented by carryover authority in FY 1996.

FRA is requesting a total of $2.189 million for Administration in the R&D account. Of this amount, $1.678 million is for PC&B costs, leaving a balance of $511,000 for all other administrative costs. If the $426,000 is not restored, FRA will have to RIF 5 FTEs or reduce non-pay administrative funds by 83 percent. Either option will substantially impair the R&D program.

The new program ($132,000) which is detailed on page 60 of the budget consists of: $20,000 for translation services; $72,000 for administrative support of FRA's On-Site Contracting Officer's Technical Representative at DOT's Transportation Technology Center; and $40,000 to support an automated project management database needed to monitor and track all R&D projects.

FATIGUE MITIGATION/STUDIES

Question. What the are fatigue mitigation strategies to be investigated described on page 73?

Answer. Napping strategies and vigilance monitoring are mitigation strategies research to begin in late FY 1996. These approaches will be pursued to their logical conclusion before other approaches are considered. The vigilance monitoring activity will begin by evaluating technologies available and under development by others. This may result in testing one or more of the technologies for railroad application or initiation of FRA's own development effort. Other strategies which may be explored in the future include methods of enhancing alertness such as work environment modifications (light, sound, temperature/humidity, scent, vibration, etc.).

Question. What follow on studies are planned for the enginemen stress and fatigue project which is quickly coming to a conclusion? How are these follow on studies reflected in the FY 1997 budget request?

Answer. An evaluation of controlled on-duty napping strategies for engineers and an exploratory review of vigilance monitoring technologies will be initiated in late FY 1996 and continue through FY 1997. Funding from both fiscal years is planned for these activities.

Question. When will FRA initiate a test of an approach to mitigate effects of fatigue while on duty?

Answer. A project to evaluate napping strategies will begin in late FY 1996. Actual testing is expected to begin in mid-to-late FY 1997.

STRATEGIC PLAN

Question. Would it be worthwhile to prepare a detailed strategic plan outlining the direction and nature of research to be conducted during the next five years for the entire R&D program as well as the Next Generation Program?

Answer. An R&D Strategic Plan has been developed which could be used as a basis for a 5-year plan. FRA has been thinking about the future of the R&D program and it would be worthwhile for FRA to develop a 5-year strategic plan for the R&D and Next Generation programs. Furthermore, FRA would want to coordinate it with the 5-year plan of the Association of American Railroads' Research and Test Department to insure there is no conflict or overlap. The FRA plan should be a "rolling," not a fixed, 5-year plan, recognizing that it must be flexible to reflect both new knowledge that comes out of the various research projects as well as new priorities that arise due to externalities, such as accidents and other circumstances. As railroads implement new technologies, sometimes there are unanticipated consequences that result in accidents. FRA's Strategic Plan needs to be flexible in order to address these safety issues in a timely manner. Consequently, the 5-year plan would be more detailed in the close-in years and less detailed in the out-years.

FUEL TANK INTEGRITY RESEARCH

Question. Did FRA discontinue or reduce the research program on fuel tank integrity after the Association of American Railroads issued its new guidelines on this subject? If so, why? How much does FRA plan to spend on this area during FY 1996 and FY 1997?

Answer. FRA discontinued the fuel tank work to have time to assess the effects of the new AAR guidelines on safety of locomotive fuel tanks. FRA plans to initiate a project of $150,000 in FY 1997 to determine the improvement in crashworthiness of the new design with that of the older design.

PASSENGER EQUIPMENT

Question. How does either the ongoing FY 1996 or proposed FY 1997 R&D budget address the issue of emergency exits in passenger equipment?

Answer. A research project is included in the high-speed rail safety program on emergency preparedness in which FRA reviews the issues of emergency equipment, including exits, and makes recommendations to the on-going equipment safety standard development. Therefore, FRA did not include emergency exits in passenger equipment in the FY 1996 or FY 1997 budget.

Question. How does the equipment and components subprogram reflect the congressional mandate for FRA to develop passenger equipment standards? How much money was allocated for this purpose in FY 1996 and how much is planned for FY 1997?

Answer. FRA conducts programs in rail equipment and components safety projects in vehicle dynamics, braking system and crashworthiness that provide direct support to the development of passenger equipment safety standards with performance data and system safety criteria. For example, work conducted in the safety critical areas for the Amtrak 26 trainset procurement for the brake system, glazing, interior configuration, automated systems, and crashworthiness is applicable. In addition, the research for the power brake rule, especially for high speed, can be applied to passenger equipment. Research over the past two years in locomotive and passenger car crashworthiness has resulted in acceleration levels for use in determining structural loading values and occupant "G" loads can be used for occupant survivability. About one million dollars is allocated for FY 1996 and one million is requested for FY 1997.

FATIGUE RESEARCH RESULTS

Question. Please provide results to date of the fatigue research sponsored by FRA. Is there enough information to lead to a regulatory revision of the hours of service requirements, assuming this authority became available? If not, how will the FY 1997 program contribute toward this objective?

Answer. A very brief and simplified summary of conclusions from the enginemen stress and fatigue project follows: (1) a backward shift rotation which is compliant with current hours of service law (i.e., each successive shift starts earlier than the previous one) is likely to produce cumulative sleep debt leading to reduced alertness and ability to perform; (2) the effects of this sleep debt are most pronounced in the early morning hours when circadian rhythm functions are at their lowest; and (3) engineers are able to subjectively report their state of alertness. The contributions of this research to rules revision remain to be discussed by primary stakeholders. In the meantime, work on mitigation strategies, primarily napping and vigilance monitoring, will proceed during FY 1997.

R&D PUBLICATIONS

Question. Please list the titles and NTIS numbers of all publications prepared during the last year.

Answer. Please note that most of the following technical reports do not have NTIS numbers at this time because they are in final review and printing:

Report Title	**NTIS Number**
Locomotive Crashworthiness Research - Volume 5: Cab Car Crashworthiness Report	In final review/ printing
Safety of Highway-Railroad Grade Crossings: Use of Auxiliary External Alerting Devices to Improve Locomotive Conspicuity	Sent to NTIS
Engineering Data of Suspension Systems of Selected Railroad Passenger Cars	In final review/ printing

Estimation of Actual Residual Stresses Due to Braking and Contact Loading of Rail Vehicle Wheels	In final review/ printing
Track Lateral Shift: Fundamentals and State-of-the-Art Review	PB 96 172788
Procedures to Establish Inspection Intervals of Regularly Maintained In-Service Units Subject to Failure	In final review/ printing
Engineman Stress and Fatigue: Phase II	In final review
Investigation of the Effects of Braking System Configuration on Thermal Input to Commuter Car Wheels	In final review/ printing
Nationwide Study Of Train Whistle Bans - April 1995	Sent to NTIS
Highway-Rail Crossing Accident/Incident And Inventory Bulletin for Calendar Year 1994 - July 1995	Sent to NTIS (Will also be available on FRA web site)
Highway-Railroad Grade Crossing Safety Research Needs Workshop, Summary of Results - July 1995	Sent to NTIS
Safety of Highway-Railroad Grade Crossings, Use of Auxiliary External Alerting Devices to Improve Locomotive Conspicuity - July 1995	Sent to NTIS
Florida's Train Whistle Ban, Final Edition - October 1995	Sent to NTIS

The FRA also has published print, audio and video public service announcements (PSAs). Three were video and five audio, as well as posters and "slicks" for magazine ads. One video and two audio PSAs were in Spanish. Several of the PSAs are available through the FRA web site.

IMPROVED COMPONENT INSPECTION SYSTEM

Question. Why is it of critical importance that funds for improved component inspection system be increased in FY 1997? Isn't this a private sector activity?

Answer. It is of critical importance that funds for improved component inspection systems be increased in FY 1997 to support the safety aspects of such a system. The component inspection system would provide early detection of component deterioration and failure which will reduce the risk of derailments. Advances in safety inspection technology are a critical area for FRA safety assurance efforts because it will improve the inspection performance and understanding of various new equipment introduced by the industry. The FRA Office of Research and Development will work with the Association of American Railroads to address the safety benefits of an improved component inspection system.

STRESS & FATIGUE FUNDING

Question. Please provide results to date of the fatigue research sponsored by FRA. Is there enough information to lead to a regulatory revision of the hours of service requirements, assuming this authority became available? If not, how will the FY 1997 program contribute toward this objective?

Answer. A very brief and simplified summary of conclusions from the enginemen stress and fatigue project follows: (1) a backward shift rotation which is compliant with current hours of service law (i.e., each successive shift starts earlier than the previous one) is likely to produce cumulative sleep debt leading to reduced alertness and ability to perform; (2) the effects of this sleep debt are most pronounced in the early morning hours when circadian rhythm functions are at their lowest; and (3) engineers are able to subjectively report their state of alertness. The contributions of this research to rules revision remain to be discussed by primary stakeholders. In the meantime, work on mitigation strategies, primarily napping and vigilance monitoring, will proceed during FY 1997.

OPERATING RULES RESEARCH

Question. What research might be conducted to improve the clarity and understanding of railroad operating rules? Has this been a contributory factor to railroad crashes? How much do you plan to spend in this area during FY 1996 and FY 1997?

Answer. The original plan was to develop guidance for writing operating rules and for writing and administering rules tests, with a particular emphasis on clarity and ensuring that affected employees have a correct working understanding of rules application. Since this need was originally identified, rules used by most Northeastern and Western railroads have been rewritten with an eye toward improved clarity. Together, this represents approximately eighty per cent of railroad operations. In this light, the need for further work will be reassessed during FY 1997 and redirected as needed. $150,000 of prior year funding has been allocated for this activity. The original need for this development activity was determined based on accident investigations which indicated a misapplication of rules, even though the individual involved had recently passed a rules test, and a review of a sample of rules by testing experts.

ENVIRONMENTAL ISSUES

Question. Please break down in detail the uses of the $600,000 requested for environmental issues on page 67.

Answer. The three highest priorities for funding under this program in FY 1997 are: research into the potential effect on human health of electromagnetic fields (EMF) generated by electric high-speed rail systems; identification of the sources of noise from high-speed equipment and design treatments to reduce this noise; and research into low cost measures to reduce wayside vibration resulting from high-speed operation. Since there is presently no consensus in the scientific community whether EMF at the levels generated by high-speed rail systems are associated with adverse health effects in humans, FRA's EMF research to be conducted in FY 1997 will build on past efforts and focus on attempting to draw a correlation between specific health concerns and their occurrence near electrified rail systems.

ADVANCED TRAIN CONTROL ERGONOMICS

Question. Please assess why research on the ergonomics of advanced train control on page 57 needs to be accelerated in FY 1997.

Answer. The ergonomics of advanced train control project addresses the issue of what information needs to be displayed to locomotive engineers and dispatchers, and what is the best way to display that information. (It is similar to work that has been done for airline pilots and air traffic controllers.) As the technical development of the several positive train control projects proceeds during FY 1997, it is imperative that the ergonomics work proceed in parallel so results will be in hand at the time that decisions are made about larger-scale deployments of advanced train control (positive train control) systems. The ergonomics work does not duplicate any work currently being carried out by railroads or train control suppliers.

SAFETY OF HIGH-SPEED RAIL SYSTEMS

Question. What is the basic amount of funding necessary to monitor, assess, and issue regulations to ensure the safety of high speed rail systems?

Answer. FRA is requesting $5.8 million in FY 1997 as the minimum to fund the high-speed rail safety program. This covers all aspects of high-speed rail safety including grade crossing, train control and equipment safety as well as the funds to support the development of regulations for specific systems such as the Florida Overland Express.

PASSENGER EQUIPMENT SAFETY STANDARDS

Question. Is there any research related to passenger equipment safety standards that could be accelerated? How much would this cost?

Answer. Research effort in cab car and locomotive fuel tank crashworthiness can be expanded. It would cost about $500,000 in FY 1997 with additional funding being required in FY 1998.

TRACK RESEARCH

Question. What is the compelling reason for such a large increase in track research during FY 1997?

Answer. During the mid-eighties and early nineties, the number of reported accidents due to track stopped decreasing, leveled off, and began to rise slightly. Track is still the largest cause of train derailments and it accounted for approximately one-third of all reported accidents. The requested increases in the FY 1997 track research budget are for expanded activities to: examine the buckling strength of concrete tie tracks; investigate the impact of high adhesion locomotive forces on track safety; and develop a comprehensive vehicle/track model. The industry has been expanding its use of concrete ties in place of wood ties to reduce degradation of track geometry. However, recent research results indicate the possibility of premature degradation of concrete tie track buckling resistance. Funds are requested to expand field testing and analysis of the lateral buckling resistance of concrete tie tracks. A new area of study and research for which additional funds are requested will deal with the introduction of high adhesion locomotives and their short and long term influence on track integrity and safety given their ability to induce higher and more concentrated forces into the track structure. Another item for which additional research funds are needed is the development of a comprehensive vehicle/track model. The current analytical tools are well suited for describing vehicle performance, but suffer from a poor and oversimplified track representation. A comprehensive model for a complete vehicle/track system simulation will allow for better utilization of numerous other research results and will be an essential aid in accident investigation. All of the above research programs for which additional funds are requested will have a direct impact on improving track safety and therefore reducing the level of accidents due to track failures.

OFFICE OF RAILROAD DEVELOPMENT-FTEs

Question. Your budget justification shows 4 FTE for the next generation program. Where are these staff located? If two positions are in the Office of Passenger and Freight Services, will they be transferred to the Office of Research and Development now that the commercial feasibility study and the policy studies are basically complete?

Answer. Of these positions, two are located in the Office of Research and Development and two in the Office of Passenger and Freight Services. The two positions in the Passenger and Freight Services will remain there because of the growing need to provide planning technology support to the States in conjunction with their intensifying HSGT activities, some of which are partially funded by the $1 million made available for FY 1996 as authorized by the Swift Act, to provide technical assistance, support clearinghouse and coordination, and manage evaluation of the Next Generation High-Speed Rail Program.

HIGH-SPEED RAIL
ELECTROMAGNETIC FIELDS RESEARCH

Question. Please describe in detail the research to be conducted on monitoring the impacts of electromagnetic fields under your budget category "Safety of High-Speed Ground transportation." Wasn't this fully addressed in previous FRA research?

Answer. FRA has conducted extensive research in the electromagnetic field (EMF) area; however, there is no consensus presently in the scientific community whether electromagnetic fields (EMF) at the levels generated by high-speed rail systems are associated with adverse health effects in humans. This uncertainty, in turn, becomes reflected in what might be viewed as unfounded citizen opposition and litigation seeking to halt development of electric-powered high-speed rail systems. (One of the major issues raised in the litigation seeking to halt the Northeast Corridor electrification project was FRA's inability to state conclusively that there would be no adverse health impacts.) EMF research to be conducted by FRA in FY 1997 will build on past efforts and focus on attempting to draw a correlation between specific health concerns and their occurrence near electrified rail systems. In FY 1997, FRA will request the Volpe Center to continue to participate in the various interagency and academic groups that are coordinating the research into EMF.

PUEBLO TEST FACILITY

Question. The R&D program calls for $1,000,000 on page 60 for test support equipment for high speed rail at Pueblo. The High Speed Rail Program calls for $3,000,000 on page 139 for upgrading the Pueblo test facility. What is the relationship and differences between these two requests?

Answer. The $3 million is the final installment (of $9.5 million total) for completing the recently begun rehabilitation of the high-speed test track infrastructure at Pueblo in order to assure safety during 150-mph testing of Amtrak's high-speed trainsets. Testing by the trainset manufacturer during development could commence as early as 1998 and qualification testing for Amtrak would occur upon completed trainset delivery expected in 1999. During testing, the trainset will create large forces upon the track and these forces may cause track misalignment. The $1 million is for equipment that will monitor track condition between tests and will enable realigning the track as necessary to maintain it in safe condition commensurate with the installed level for which the total Government investment of $9.5 million has paid.

OREGON/PACIFIC NORTHWEST HSR PROJECTS

Question. How could the current high speed project in the State of Oregon/Pacific Northwest region be integrated with your proposal to fund train control work in dense urban areas?

Answer. The Cascadia Corridor high-speed project sponsored by the states of Oregon and Washington is already fully coordinated with the train control activities being sponsored by FRA, as well as with the railroad-sponsored Positive Train

Separation (PTS) Project. PTS testing will begin in August, 1996 and continue through 1997. In cooperation with Burlington Northern Santa Fe, the $5 million provided in the FRA R&D budget for FY 1996 will fund activities focused on the Portland terminal area. Train control work in dense urban areas could be extended to other urban areas in the corridor. Subsequent phases of the PTS program will move the train control system toward safety-vital operation suitable to permit high-speed operations.

Question. How could the State of Oregon play a role in developing non-electric locomotive technology in conjunction with the high speed train sets being tested in Washington? How much would such an effort cost, and how long would it take to complete? How would this relate to the national program?

Answer. Oregon, Washington State, and the Province of British Columbia need improved high-speed, high-acceleration, lighter weight non-electric locomotives to propel the new trainsets which the State of Washington is purchasing. Oregon can take the lead in the testing and demonstration of such a locomotive, which can be a prototype for other corridor. Other developing corridors have similar requirements. Such an effort is estimated to involve $15 million over two fiscal years, including a demonstration which might not be limited to the Cascadia Corridor. This effort would be entirely consistent with the objective of the Next Generation Program, which is to demonstrate commercially available technology for the developing corridors by the year 2000.

INTEROPERABILITY IN NEW SYSTEMS

Question. What specifically is FRA doing to assess the interoperability of propulsion, signal, and grade crossing protection technology in new systems?

Answer. The primary method of assuring interoperability is to require that all parties involved in operating developing corridors participate in demonstration project solicitation responses, project planning and implementation, to assure that program products will function in the intended environment. This means participation by states, railroads, suppliers of technology, and industry associations and universities, as appropriate. This approach was implemented in the solicitation for the Next Generation train control demonstrations, for the non-electric locomotive demonstration, and for the Broad Agency Announcement issued in FY 1996. In addition, for the train control demonstration projects, FRA sought coordination and input from an AAR technical committee, and is maintaining close liaison with the Intelligent Transportation Systems Joint Program Office.

TRACK/STRUCTURES TECHNOLOGY

Question. What are the implications of delaying or split funding the new initiative on track/structures technology?

Answer. Delaying or split funding would postpone efforts to expedite required construction and identify solutions for maintaining track quality in mixed traffic operations. For example, Virginia has appropriated state funding to construct about 20 miles of track over the next three years to resolve operating and capacity problems on the Washington, DC, to Richmond corridor. Oregon and Washington

State, in cooperation with Burlington Northern Santa Fe, are considering construction of about 50 to 70 miles of track between Portland and Seattle. Illinois and North Carolina are considering the need to upgrade track capacity in their developing corridors. Although these amounts of track are modest in railroad terms, they represent large potential expenditures in the context of corridor upgrade funding available to the states, and the availability of more cost effective approaches would therefore significantly enhance the prospect of implementing high-speed service.

Question. With respect to the track and structures initiative, what technologies are likely to be funded? Do you have any specific proposals? How much will this total effort require for how many years? Will the proposed initiative on track structures address the issue of determining the feasibility of better track maintenance techniques for use during short time windows within train operating schedules?

Answer. Technologies likely to be funded are in three general categories. First, for construction or reconstruction of track, automated machinery and components suitable for automated assembly are the likely candidates, to reduce the cost of constructing or replacing track on right-of-way where track previously existed. Second, a focus is needed on improved track components and methods suitable for handling heavy freight traffic as well as providing superb ride quality for high-speed passenger service. One example of technology capable of providing such performance would be advanced alloys for rail and switch components. Third, methods of performing track maintenance in minimum-time windows are needed to assure adequate route capacity for both freight and passenger service. No specific proposals have been received since no significant funding has been available in this program focus area. As stated above, and as recommended by the Transportation Research Board committee reviewing the Next Generation Program, maintenance methods and equipment suitable for accomplishing maintenance in minimum-time windows is a high priority for this program area.

Question. How long is the track and structures initiative expected to last? What are the total likely costs of this initiative? What specific technologies are likely to be pursued? How will you ensure adequate cost sharing? What was the empirical basis on which the $3,000,000 request on page 140 is based?

Answer. The track and structures initiative is expected to last four years at a total estimated cost of $10,000,000. Technologies likely to be funded are in three general categories. First, for construction or reconstruction of track, automated machinery and components suitable for automated assembly are the likely candidates, to reduce the cost of constructing or replacing track on right-of-way where track previously existed. Second, a focus is needed on improved track components and methods suitable for handling heavy freight traffic as well as providing superb ride quality for high-speed passenger service. One example of technology capable of providing such performance would be advanced alloys for rail and switch components. Third, methods of performing track maintenance in minimum-time windows are needed to assure adequate route capacity for both freight and passenger service.

Adequate cost sharing will be ensured by the open solicitation process already followed in the Next Generation Program, as exemplified by the Train Control demonstration projects now underway. Teams of states, railroads, and suppliers will be sought to assure not only effective cost sharing, but optimum demonstrations of technology most likely to be of interest to the largest numbers of developing corridors.

The $3,000,000 request is an estimate of a reasonable amount of funding to construct or reconstruct sufficient trackage to warrant testing innovative construction methods and deliver sufficient trackage to make a significant difference in real corridor capacity. There is a wide spectrum of potential capacity upgrade projects on developing corridors, but highly automated methods and machines often require significant transportation and setup costs, and hence are likely to be justified only if a significant amount of trackage is involved.

PLANNING ASSISTANCE FOR STATES/MPOs

Question. How many states or MPOs are benefitting from FRAs current planning assistance? What is the status of these projects? What specific projects have been funded with the FY 1996 monies?

Answer. FRA published a notice in the Federal Register to solicit planning assistance proposals and the application period closes on July 1, 1996. FRA is working with 15 states which intend to submit applications for projects such as North Carolina's "Closed Corridor Concept," Mississippi's Biloxi/Gulfport High-Speed Rail/Auto Corridor, and the developing high-speed corridors from St. Louis, Minneapolis, and Detroit to Chicago; San Diego to San Francisco; Eugene, Oregon to Seattle and Vancouver, B.C; Tampa to Orlando and Miami, Florida; and Washington, D.C. to Richmond and Newport News, Virginia.

Question. Why is it of critical importance that funds for planning technology be increased at this time?

Answer. There are two main needs for the requested planning funding. First, states such as Mississippi, Louisiana, Pennsylvania, Alabama, Georgia, and Indiana have requested that railroad routes in their states be formally designated as developing high-speed rail corridors. These states have repeatedly requested that the Department of Transportation (DOT) recognize their desire and commitment to the goal of high-speed ground transportation and that DOT provide a mechanism to focus their efforts so as to be effectively coordinated and consistent on a national basis. The requested funding in the planning category may be made available to these states competitively based on their providing evidence of firm commitment and willingness to sustain both development efforts and any proposed operations--from elected officials, state and/or local government agencies, and the railroad companies which own and operate the specific routes on which upgraded service is proposed. These criteria, similar to those applied to select the existing ISTEA 1010 designated corridors, will be the prototypes for the formal designation process which FRA and DOT will pursue under ISTEA reauthorization.

Second, several of the ISTEA-designated high-speed corridor states, including Virginia, Oregon & North Carolina, are at critical stages in their corridor development and will be seeking development funding. The additional funding will support efforts to find new ways to maximize the return on limited transportation infrastructure investments by enhancing the performance of existing facilities. For high-speed rail, this trend means intensifying the use of existing railroad rights-of-way, which already may carry a variety of traffic -- intercity passenger, freight, and commuter. Given this need for mixed use and multiple operators, an effective operations coordination mechanism -- assuring that all needs, freight, high-speed rail, other intercity passenger, and commuter, are met -- is an absolute prerequisite to implementation of reliable high-speed rail that minimizes the initial investment. The purpose of the increase in the planning technology effort is to develop detailed models, planning methods, and case studies that will enable States to address the coordination of new high-speed services with existing uses of rail rights-of-way. This, in turn, will allow States to develop such coordination methods and incorporate them in the planning and cost estimates for high-speed services. Without the improved planning made possible by this activity, the cost of high-speed rail systems will be higher, and their performance poorer, than would be the case in the presence of the operations coordination mechanisms as envisioned.

NON-ELECTRIC LOCOMOTIVE

Question. Is the non-electric locomotive program developing a consensus about a common design that could serve several markets and generate sufficient demand? Is your program leading toward such a consensus?

Answer. The Next Generation program already has provided a focus for discussion among the various states and corridor representatives of the need for a faster non-electric locomotive and likely approaches. The non-electric program has sought to push the performance of existing and near-existing options and is in the process of developing consensus about the effectiveness of alternatives that could be used in emerging corridors. Once such information is available, the market will focus resources on a limited number of approaches.

NEXT GENERATION HSR - ADMINISTRATIVE COSTS

Question. Please break out in detail the administrative expenses for the high-speed rail program.

Answer: The information follows:

NEXT GENERATION HSR-ADMINISTRATIVE COSTS

	(In thousands)
Personnel compensation & benefits	$308
Travel	40
Rent/Communications/Utilities	2
Printing	1
WCF	8
Other Services	55
Supplies	3
Equipment	11
	$428

TTC UPGRADE AND REPAIR

Question. Please prepare a table indicating the amount of funds that was appropriated for upgrade and repair of the TTC for the last several years, the amount actually spent to date, and the amount of legally committed contracts, and the amount of funds that are reasonably expected to be spent during FY 1997.

Answer. The information follows:

TRANSPORTATION TECHNOLOGY CENTER (TTC) R&D FACILITIES RESTORATION PROJECTS
(dollars in thousands)

Fiscal Year	Funds Approved	Funds Requested	Expenditures	Committed	Planned Expenditures
1993	500	---	3	---	---
1994	600	---	287	---	---
1995	200	---	859	---	---
			(225) 1/		
1996	400	---	132	(269) 1/	---
			(109) 1/		
1997	---	420	---	---	---
	-------	-------	--------	--------	------
Total	1,700	420	1,281	(269)	820

1/ Funding from other sources

NEXT GENERATION HSR - GRANTS

Question. Please explain in detail the $1,000,000 for grants, subsidies, and contributions (page 133). This number has been declining since FY 1995. Can it eventually be phased out?

Answer. The $1,000,000 entry on page 133 reflects amounts to be furnished as direct grants to states, rather than cooperative agreements or contracts, to support planning activities. Direct grants are judged to be the most appropriate instrument for the planning activity in which the states exercise full direction of the work. The amount in the grant line item has declined as program activities have been implemented with cooperative agreements rather than grants as the instrument of choice for project awards to states.

Funding of the technology development activities in the Next Generation Program is being accomplished almost entirely through cooperative agreements between FRA and the States, or through contracts between FRA and system development contractors. These funding instruments permit FRA to exercise technical direction to assure that the program activities remain coordinated on a national basis. In future years, the grant line item amount will change to reflect the most effective method of conducting the program.

NON-ELECTRIC HIGH-SPEED LOCOMOTIVES/COST SHARING

Question. What is the status of cost sharing efforts to advance non-electric high-speed locomotives?

Answer. In FY 1995 and 1996, $9 million was appropriated for non-electric locomotive projects. About $9 million of matching contributions has been committed, including $6 million from the State of New York to match $6 million of FY 1996 funding and $2.7 million of one-for-one matching on the flywheel development effort.

HIGH-SPEED RAIL DEMONSTRATION REPORT

Question. Last year's bill report required an analysis of the High-Speed Rail demonstration from New York City to Albany. What is the status of this report? What are the major findings?

Answer. The information requested by the Conference Report on "The Retrofitted Locomotive as Compared to the Genesis P-40 and Other High-Speed Locomotives" is scheduled to be delivered to the Committee by August 15, 1996, the date set by the Report. In addition to the Genesis P-40, the retrofitted turbine locomotive will be compared to the RTL-II Turbine currently in service between New York City and Albany, the AEM-7 electric locomotive and the F-40 Diesel locomotive Seating capacity for trains powered by the various locomotives will be approximately 290. FRA, Amtrak and the New York Department of Transportation are working together to complete this assignment.

FLYWHEEL PROJECT

Question. How many additional years will be required to complete work on the flywheel project? What is the likelihood that this technology will be commercialized?

Answer. This project is expected to result in a rolling demonstration in a working locomotive in 1998. There is excellent likelihood of commercializing the technology, based on the team expertise provided by the University of Texas, two divisions of Allied-Signal for the turbine engine and high-speed alternator, the locomotive expertise of Electro Motive Division of General Motors, and other participants.

ISTEA AUTHORITY/HIGH-SPEED RAIL DEVELOPMENT

Question. Please specify how other funds authorized in ISTEA have been used to date to promote high-speed rail development. Which specific sections of ISTEA authority have been utilized? What specific cooperative agreements or other financial arrangements have been initiated or completed thus far? What other actions are being considered? Please be certain to specify the progress made with these funds.

Answer. Under Section 1010, $5 million per year for six years, a total of $30 million, has been made available for improvements at grade crossings in the five designated high-speed corridors. To date, $22.6 million has been allocated to the ten states for improvements at both public and private crossings, such as installation of new crossing gates, four quadrant gates, median barriers, crossing closures and consolidations and other improvements; $7.4 million remains to be allocated in FY 1997, the final year of the program.

Under Section 1036(c), $5 million per year has been made available for demonstrations of advanced technology that offered the potential to contribute to the development or safety of high-speed rail. Six grants were awarded, totaling $7.952 million, in FY 1994. One was for the retrofit of an RTL turboliner in New York state with new turbine engines and other improvements for demonstrations at 125 mph, which was successfully completed in early 1995. Others were for innovative grade crossing systems (a 4-quadrant gate with obstruction detection in Connecticut, a friendly mobile barrier in Virginia, and a low cost grade separation in Florida, all under design or test) and for incorporation of innovative technology in the development of the high-speed corridors in Illinois and North Carolina.

In FY 1995, the $5 million in ISTEA Section 1036 funds were incorporated as part to the newly-defined Next Generation High-Speed Rail Program. The $5 million of ISTEA Section 1036 FY 1995 funding was awarded as part of the funding of a competitively-selected grant to the State of Michigan to demonstrate an advanced communication-based train control system on Amtrak-owned trackage which is part of the developing Detroit-Chicago high-speed corridor. This demonstration program has a major component of upgrading highway-rail grade crossings, utilizing the new information available from the train control system to enhance crossing warnings. In FY 1996, the $5 million of Section 1036 funding will be applied to complete the proposed funding of the Michigan train control demonstration and to partially fund a second advanced train control demonstration program being pursued under a cooperative agreement with the State of Illinois for a system on the developing Chicago-St. Louis High-Speed Corridor.

Substantial financial assistance for stations and intermodal facilities has been provided under FTA Section 3, 9, 26(b), 8, and FHWA CMAQ. Funds were used for planning, design and construction at major intermodal facilities such as South Station, Boston, MA.; Baltimore; Penn Station, Philadelphia; Chicago, Ill; Los Angeles; Portland, Or.; and Newark. These facilities have been upgraded for mass transit and intercity rail and can accommodate high-speed rail.

HSR COMMERCIAL FEASIBILITY STUDY/POLICY WORK

Question. What are the initial results of FRA's high-speed rail commercial feasibility study and the emerging high-speed rail policy work?

Answer. The commercial feasibility study is currently under review within the Executive Branch and FRA will forward the full results and conclusions to the Congress when that review is complete.

A draft of the National High-Speed Ground Transportation Policy, intended for public comment, is currently in preparation in the Department of Transportation. The draft Policy will enunciate fundamental principles in such areas as HSGT's place in intermodal transportation planning; the respective roles of the States and the private sector in HSGT implementation; the role of Amtrak; and the direction of HSGT technology development in the U.S.

NEXT GENERATION HSR-ADMINISTRATIVE EXPENSES

Question. What are the expected uses of the administrative expenses dealing with the next generation of high-speed rail technology? How much of these funds is used to hire consultants? Why can't FRA employees do this work?

Answer. The administrative funds pay the salaries and expenses of the FRA employees working on the next generation program. The administrative funds are not used to hire consultants.

TRANSPORTATION TECHNOLOGY CENTER (TTC) - UPGRADE

Question. How much has and will the private sector contribute toward the upgrading of the Transportation Technology Center in Pueblo, Colorado?

Answer. In FY 1996, the private sector is expected to fund about $4.5 million toward upgrading the TTC. This amount is made up of donations of $2 million of equipment and supplies to support testing at the Facility for Accelerated Service Testing (FAST); $1.9 million invested directly in the facilities by the Association of American Railroads; $450 thousand of materials and in-kind services to support the upgrade of the high speed test loop; and $150 thousand to create a full-scale simulation of a scenario for a hazardous material incident involving a barge transloading facility.

HIGH-SPEED TRAINSETS/CRASHWORTHINESS STANDARDS

Question. What progress has been made to adapt new, lightweight materials from aerospace airframe manufacturers to high speed rail trainsets to meet North American crash worthiness standards?

Answer. The concept of applying aerospace materials to railroad vehicle carbodies was one of the major themes of the FY 1995 Broad Agency Announcement (BAA) which FRA issued under the Next Generation High-Speed Rail Program, with an amount of $500,000 potentially available for that topic area. FRA made a strong effort to make the public, suppliers, and innovative technology organizations of all sizes aware of the opportunity in the BAA. Although several proposals were received, none were judged to merit funding.

Parties which did not bid commented that railroad operating conditions create unique carbody design challenges. For example, aircraft frames are not subject to the very high compression loads which occur in a railroad carbody when a train is operated downhill under heavy locomotive braking or during coupling operations. Dealing with the railroad environment requires significant specialized knowledge and construction methods would require initial multi-million dollar investments. Under these circumstances, sufficient funding was not available in the FRA program to elicit substantial proposals.

TECHNOLOGY DEMONSTRATION RESEARCH

Question. Please review the current status of the Section 1036c grants for technology demonstration research. What progress has been made? Any cost overruns? Which projects are likely to result in widespread use of new technology? How does this program relate to the FY 1997 budget in the high-speed rail area?

Answer. A summary of the grants awarded to date is provided below. The summary excludes train control demonstration projects in Michigan and Illinois which are funded with Next Generation funds. Six grants have been made under Section 1036(c): three under grade crossing enhancements; one under non-electric locomotive; and two under planning. The Congress repealed the Section 1036c spending authority of $5,000,000 for FY 1997. About $1.4 million of carryover authority will be applied to Next Generation activities in FY 1997.

SUMMARY OF PROJECTS AWARDED UNDER ISTEA SECTION 1036c

Grade Crossing Systems Enhancement

Consolidated Launcher Technology, Inc. (Chesapeake, VA) - received a $400,000 grant with $100,000 match from the company. This project was to demonstrate a "friendly mobile barrier" (FMB), which is a crash attenuation device that rises from a vault in the roadway after the crossing gates go down, preventing motor vehicles from penetrating and blocking the tracks while stopping the vehicle safely. The FMB design and manufacturing were completed by late February, 1995, although at a cost overrun of $109,000 which has been borne entirely by the company. Crash tests of the device were conducted in March, April and July using three pickup trucks (4,400 lbs each) and one small car (1,800 lbs.) traveling at 45 mph.

Connecticut - The State of Connecticut DOT received a grant for $800,000 with $200,000 state match. This project will demonstrate an advanced grade crossing warning system which will use four quadrant gates with an obstacle detection system and communication system to notify the locomotive engineer of an obstruction in adequate time for the train to be stopped. This system will be similar to the Swedish X2000 system developed by ABB Signal Inc. and will overlay the existing signal system.

Design of the system is underway. The State will receive an additional $200,000 while providing an additional $18,600 in State funds. Fabrication should be completed to allow testing in late summer of 1997, followed by installation and demonstration at the selected crossing at School Street in Groton, CT in the fall of 1997. The demonstration will last one year.

Florida - The State of Florida DOT received a grant for $252,000 to develop a low cost grade separation. The total cost and time of construction was expected to be approximately 50 percent less than the time and cost of a traditional pile supported, concrete wall and beamed structure. The total project cost was estimated in the original submission at approximately $400,000. Three optional designs have been examined: steel arch, concrete arch, and traditional vertical wall with concrete deck. All concepts would be built upon a concrete stem wall (8 feet high) which is used to protect the lining of the tunnel. Private contractors will bid upon these options.

The Highway District engineers have completed their cost estimate which now totals approximately $1.4 million. This cost increase is due to the additional fill material needed to raise the roadway and purchase of right-of-way for the overburden. At $1.4 million, the cost savings over conventional construction are minimal. A decision has not yet been made as to whether the state will go forward with this project.

High-Speed Non-Electric Locomotives

New York - The State of New York DOT received a grant for $3 million to retrofit two power units of an RTL turbo train to demonstrate the efficiencies of new, 1,600 horsepower Turbomeca Malika gas turbine engines while operating at 125 mph. The FRA grant purchased two gas turbine engines from Turbomeca and other high technology components from other suppliers. Amtrak provided $2 million in reauthorized Federal funds from the nonelectric locomotive development program to refurbish the three passenger cars. New York State DOT provided more than $2 million for track work and grade crossing improvements in the Empire Corridor.

High-speed test runs and braking tests were completed in the Northeast Corridor and the Empire Corridor in January, 1995. No problems were detected and all tests were completed without incident. Noise measurements were also taken in the test zone for inclusion in the Noise and Vibration Manual being developed for FRA. Twenty-five demonstration runs were conducted and finished by the end of February, 1995, with a VIP demonstration February 27, all with great success. All demonstration runs were notable for the very smooth ride quality.

This project is complete and met the budget limits. There was a slight delay in meeting the initial schedule, but it still met the requirements of the grant. The report summarizing the project was submitted to both the House and Senate Appropriation Committees in August 1995.

High-Speed Rail Planning

Illinois - The State of Illinois DOT received a grant for $2.5 million with a state match of $625,000. The state is conducting an environmental impact statement and investigating and analyzing the impacts of new and innovative technology in developing the high-speed rail corridor between Chicago and St. Louis. New technologies being investigated include non-electric high-speed locomotives, innovative designs for protecting at-grade crossings and lowering the costs of grade separation structures, and advanced technologies in train control and signaling. One of the grade crossing innovations to be evaluated is an arrestor net barrier, to be installed and demonstrated at three grade crossings, which will prevent intrusion of motor vehicles onto the grade crossing and enabling train operations between 110 mph and 125 mph.

The state has signed a contract with DeLeuw Cather for $3.6 million to do the data collection, analysis and other work necessary to develop the environmental impact statement. Work began at the end of January, 1996 and is on schedule and within budget.

North Carolina - The state of North Carolina DOT received $1 million with a state match of $200,000. The state is producing a design and construction master plan which is examining new and innovative technologies for developing the high-speed rail corridor between Raleigh and Charlotte. The new technologies to be considered include: advanced automatic train control systems, including global positioning satellite systems or other alternative technologies; non-electric high-speed locomotives; applications of innovative trackbed infrastructure improvements; new ways to provide protection at grade crossings; and installation of low cost grade separation structures. The project is on schedule and within budget.

TRAIN CONTROL SYSTEMS/ITS TECHNOLOGIES

Question. What efforts have been made to link train control systems with ITS technologies. What contracts have been signed in this area? Please specify objectives and funding amounts.

Answer. In FY 1995, three awards were made for demonstration of Positive Train Control (PTC) or Positive Train Separation (PTS) systems which involve linking grade crossing protection. Michigan received $6.08 million ($5 million in ISTEA funds) and Illinois received $1 million in Next Generation High- Speed Rail funds for PTC systems which also will provide enhanced grade crossing warnings, based on the precise automatic train location information and digital communications links made available in the train control systems. In the Pacific Northwest, $750,000 was awarded to the Burlington Northern Santa Fe (BNSF) and Union Pacific (UP) railroads to coordinate their PTS system development with proposed high-speed passenger operations. Each of these demonstrations will have the capability of being linked with highway-rail crossing components of ITS. Also in FY 1995, Washington State DOT received $1 million in Section 1010 funds to examine techniques for linking the PTS technology with the grade crossing signal systems and the highway traffic management systems in that corridor. The Texas Transportation Institute has been retained by the state for this work.

RAILROAD SAFETY ADVISORY COMMITTEE (RSAC)

Question. Would it be worthwhile to expand the purpose of the Railroad Safety Advisory Committee to acquire additional guidance on the scope and direction of the research and development program and the Next Generation High-Speed Rail Program?

Answer. As directed in the FY 1996 Appropriations report, FRA has worked with the National Academy of Sciences to establish a Transportation Research Board committee to review the FRA high-speed rail program. The FY 1996 work is part of a three-year effort. The participants on this committee, as with the Railroad Safety Advisory Committee, are transportation professionals volunteering their services. One of the members of the full RSAC is the High-Speed Rail/Maglev Association, which represents the interests of the high-speed ground transportation community. They are participating in the high-speed task force of the Track rules revision working group. This is one of the key areas of emphasis in which they already are involved. The Railroad Safety Advisory Committee has been given the task of addressing FRA's substantial safety rulemaking workload. It has been asked to focus on expediting input to the rulemaking process. Representatives from the Office of Research and Development are participating in appropriate working groups to assure that necessary technical support is provided.

ADVANCED TRAIN CONTROL PROJECTS

Question. Three advanced train control projects are underway. What are the specific goals and objectives of each of these? What systems will be tested in each project? What are the timetables for their completion? How will these projects support decision making on a nationwide network of interoperable Positive Train Control Systems? When will decisions be made and when and how will the deployment occur? Please provide a table describing anticipated Federal and non-Federal annual costs and systems to be tested each year through the life of the projects.

Answer. The three projects underway are designated Positive Train Separation (PTS) in the Pacific Northwest; Incremental Train Control System (ITCS) on the Detroit-Chicago high-speed corridor in Michigan; and Positive Train Control/Advanced Train Control System (PTC-ATCS) on the Chicago - St. Louis high-speed corridor. The primary objective of the present PTS project is an overlay of existing operating systems to enhance safety of freight railroad operations. The ITCS and PTC-ATCS projects are specifically intended to meet regulatory requirements to support operations in excess of 79 mph to implement high-speed rail service.

Each of these advanced systems is generically included in "Communications-Based Train Control," involving automatic location systems, onboard computers, onboard databases, digital radio links between train and wayside, and wayside facilities to supply status information and/or control instructions to the trains. Significant differences between the projects include the level of instructions provided to the train from the wayside as well as the specific operational methods employed to locate the train. Since ITCS and PTC-ATCS are intended to support high-speed operation, all locomotives operating in those corridors will be equipped with train control systems. The freight railroads sponsoring PTS have not yet formally committed to full implementation; therefore, only limited numbers of locomotives in the corridor might be equipped.

Limited-scale testing of PTS in the Pacific Northwest is to begin in August 1996 and continue with progressively greater technical sophistication through 1997. This will involve about 20 locomotives operating in a scheduled test program within a territory of 800 track miles. At that time, the sponsoring railroads will decide the level of further commitment they will make to the system. ITCS will be tested on a 70 mile section of the Detroit-Chicago corridor beginning in September, 1996, with revenue service expected in the spring of 1997. Selection of a primary systems integration contractor for the PTC-ATCS project in Illinois is expected in 1996 with testing to begin in 1998.

These projects support decision making by providing working examples of several of the possible approaches to communications-based train control. For example, the ITCS project in Michigan is intended to provide high-speed operation and enhanced grade crossing protection at approximately 50 percent of the cost of similar performance upgrades if done with presently available cab signal methods. All interested parties will be able to observe and assess the practicalities of these approaches in the field.

In its Communications and Train Control Report to Congress of 1994, FRA committed to initiate a rulemaking addressing the issue of deploying new train control systems in 1997. The present charter of the Next Generation High-Speed Rail Program is to provide commercially-available technologies for deployment by states and their partners who are proposing upgrading existing corridors for high-speed service. Accordingly, the states will invest in such train control systems as a priority as corridors become ready for speeds greater than 79 mph. At present, the freight railroads are studying the potential of new control systems, such as PTS, and may deploy these systems as a business decision.

The freight railroad sponsors of the PTS effort expect to spend over $30 million through 1996. Federal participation in related projects will total $5.75 million in FY 1995 and 1996 to identify a migration path to support high-speed rail, to model the corridor operations, and to use the system to enhance passenger train operations in the area of Portland, OR. The Federal contributions to the ITCS demonstration will total $9.08 million in FY 1995 and FY 1996, matched by about $12 million from the State of Michigan and Amtrak. Further investment in this system would be based on competitive selection of potential technology advances in subsequent fiscal years. The Federal investment in the PTC-ATCS system is presently planned to be a maximum of $8 million in Fiscal Years 1995, 1996, and 1997, with matching of $5.6 million from the State of Illinois.

CONTRACT SUPPORT - OFFICE OF THE ADMINISTRATOR (OA)

Question. Please break down in detail the expected use of the contract support funds requested by the Office of the Administrator.

Answer. The information follows:

OA - Contract Support

	(Dollars in Thousands)
ICC Carload Waybill Sample	225
Economic & Financial Data	85
STRACNET	10
Network Operations Maintenance	56
Technical Assistance & Policy Support	20
Intermodal Network GIS	100
Operation Respond	53
	549

BENEFITS TO FORMER PERSONNEL - OA

Question. Why did the request for benefits to former personnel increase from $142,000 to $569,000? (Pg 17, item 13.0)

Answer. Increase represents an increase in buyouts from 5 in FY 1996 to 18 in FY 1997.

EXPORT OPPORTUNITIES ABROAD

Question. Which agency has the responsibility to promote business opportunities for U.S. rail manufacturers - the Department of Commerce, or FRA?

Answer. The Department of Commerce (DOC) has the responsibility to promote business opportunities overseas for U.S. rail manufacturers FRA maintains official rail-related relations, such as through Memorandums of Understanding, as well as project, technical and/or coordination agreements, with foreign government-owned and -operated railroads.

When requested, FRA provides input and/or assists DOC and other U.S. government agencies on rail-specific issues, projects and opportunities. Foreign government-owned and -operated railroads often provide FRA with information that is of benefit to the U.S. rail industry.

Occasionally, a railroad or ministry will request FRA assistance, such as when the Polish Minister of Transport and Maritime Economy invited the FRA administrator and the U.S. rail industry to be briefed on and evaluate almost $7 billion worth of rail-related projects over the next ten years. FRA worked closely with DOC staff - both in Washington and at the American Embassy in Warsaw - to maximize potential opportunities for U.S. rail interests.

OTHER SERVICES - OA

Question. Why is there a decline in other services on page 17 from $3,618,000 to $1,508,000? What services will be eliminated?

Answer. FY 1996 estimates include carryover funds of $2.38 million. This leaves a balance of $1.238 million in new BA in FY 1996 as compared to $1.508 million in new BA in FY 1997. This reflects an increase in service.

COMPLIANCE/ENFORCEMENT-RELATED FUNCTIONS

Question. Two years ago, the Office of Chief Counsel received additional appropriations to conduct certain compliance/enforcement-related functions. Please specify the amount of these funds which are now reflected in the FY 1997 proposed budget and discuss the amounts actually used in FY 1995 and FY 1996 versus the amounts actually appropriated.

Answer. In FY 1995, FRA sought $368,000 to fund the costs of administrative litigation related to the FRA safety program (e.g., engineer qualifications, hazardous materials enforcement, disqualification of unfit railroad employees and emergency orders). FRA at that time employed, through a reimbursable agreement, administrative law judges (ALJs) from the Department's Office of Hearings to preside over the hearings in these cases. FRA's funding request was based on an Office of Hearings estimate that each engineer qualification case would cost approximately $33,000, and FRA's anticipation of having 15 cases involving a review of railroads' decisions to revoke or deny engineers' certificates. To reduce the administrative litigation costs to the agency, in FY 1996 FRA decided to discontinue using DOT ALJs and instead use an FRA attorney as a hearing officer, in addition to handling non-safety FRA legal matters. The FY 1996 and FY 1997 budgets reflect a reduction of $368,000 as a result of this decision.

TRAVEL - OFFICE OF CHIEF COUNSEL

Question. What is the current travel budget for the Office of Chief Counsel? How much is proposed for FY 1997?

Answer. The information follows:

OFFICE OF CHIEF COUNSEL - TRAVEL
(Dollars in Thousands)

FY 1996	FY 1997
76	78

CIVIL PENALTY CASES/ASSESSMENTS

Question. Please provide statistical data similar to information provided in previous years on settlement ratios, assessed amounts and settled amounts for different categories of violations, etc. Please break out Federal versus State-oriented actions.

Answer. The following table shows the requested information, except that it is not possible to display closed case information broken down by state/Federal cases. State and Federal inspectors' violation reports are treated in the same way and placed in the same cases. Therefore, because violation-by-violation settlement data is not stored on the computer, it is not possible to determine precisely how much money was collected on state versus Federal violations. In the initial penalty column, the table shows the amount assessed on sustainable claims, which is less than the total amount initially assessed in any case where a violation had to be terminated because it could not be sustained. FRA collected 61 percent of the initial penalty overall, and 66 percent on hazardous materials cases.

Fiscal Year 1995 Railroad Safety Civil Penalty Closed Cases by Type of Violation

Viol Type	Initial Penalty	Amount Collected
AD	$ 187,500	$ 116,680
AR	120,000	71,900
BW	15,000	8,675
EO	65,000	44,905
EQ	103,500	56,560
FCS	908,000	530,525
GS	0	0
HMT	2,548,300	1,676,884
HS	233,000	133,125
HSR	166,750	81,000
LI	1,510,000	913,640
REM	117,500	72,725
ROP	320,500	183,670

ROR	74,500	44,600
RSP	52,000	26,140
SA	1,181,500	676,760
SI	365,500	225,655
TS	592,000	366,600
TOTAL	**$8,560,550**	**$5,230,044**

OFFICE OF POLICY - OA

Question. Please list the number of FTP and FTE in the Office of Policy for each of the last three years.

Answer. The information follows:

OFFICE OF POLICY-FTP/FTE

	FY 1994	FY 1995	FY 1996	FY 1997
Positions	34	33	31	28
FTEs	33	32	30	27

OFFICE OF POLICY CONTRACTS

Question: Please list the amount of any contracts signed during FY 1995 and thus far in FY 1996 by the Office of Policy. Please indicate the purpose, amount, and recipient of the award, and provide details on any contract involving the Volpe Center. What amount of contract funding is proposed for similar activities during FY 1997? What are the purposes of these funds?

Answer: The information is provided in the following table:

OFFICE OF POLICY - CONTRACTS

Purpose	FY 1995 ($000)	FY 1996 ($000)	FY 1997 ($000)	Recipient
Stracnet Density Data	10	10	10	U. of Wisconsin Curt Richards

Economic/Financial Data:	83	53 1/	85	
Economic/Financial Data	(50)	(18)	(85)	Bureau of Transp. Statistics
Assessment of Barriers to Intermodalism	(25)			Transportation Mgmt. Consultants
Proprietary AAR Data	(8)			Association of American Railroads
Update Financial Database		(25)		Operations Technology Services
Rail Outlook Seminar		(10)		Volpe Center
Carload Waybill Sample	221	225	225	ICC / Surface Transportation Board
Operation Respond	129	75	53	Operation Respond Institute
T-10 Car GPS Data	30	30	0	Ensco
Freight Air Quality Study	100	0	0	Federal Highway Administration 1/
Highway Miling of Carload Waybill Sample	10	0	0	ALK Associates
Study of Policy Options for Intermodal Freight Transportation	25	0	0	Federal Highway Administration 1/
Freight Diversion Model	25	0	0	TRRT
UP/SP Merger Support	0	24	0	Freight Services
Computer Hardware	0	8	0	Inteligent Electric
Evaluation of Rail Related Infrastructure Investments (Phase 1)	80	0	0	Federal Highway Administration
Evaluation of Rail Related Infrastructure Investments (Phase 2)	85	0	0	Hickling Lewis Brod

Notes: 1/ Does not include an additional $32K not signed.

ECONOMIC ANALYSIS FUNDING

Question. Please provide a complete accounting of all funds to be expended in FY 1996 and requested for FY 1997 for economic analysis. In 1995 or 1996, what publicly available products resulted from this investment? Were each of these products submitted to the National Technical Information Service? If not, why?

Answer. The FY 1997 budget has no request for funds specifically for Economic Analysis. Beginning with the FY 1996 budget, FRA no longer divides its budget request for contract support in the Office of the Administrator into categories. All funds have been consolidated into a single category without this distinction. Projects are still identified by purpose and content. The change in budget presentation more accurately reflects the diverse work of the restructured Office of Policy and Program Development (formerly Office of Policy).

Contract support funds enacted in FY 1996 ($578,000) and requested for FY 1997 ($549,000) are focused largely on assuring and maintaining information sources for policy studies. Waybill processing, economic and financial data acquisition and network maintenance accounted for $395,000 in FY 1996 and $366,000 is requested for FY 1997. In addition, $100,000 was budgeted for continued development of FRA's intermodal network GIS and $53,000 for Operation Respond in FY 1996. For FY 1997, $100,000 and $53,000 are again requested for GIS and Operation Respond, respectively. The information sources and data banks were critical to the successful preparation of in-depth analysis of the UP/SP merger, development of FRA's participation in the Department's truck-weight-size study, assessments of the economic impacts of rail strikes and other policy initiatives in areas of environmental compliance and safety.

During the Department's UP/SP merger analysis, FRA hired a consultant to analyze the UP/SP trackage rights agreement with the Burlington Northern Santa Fe Railroad. The cost of this analysis was $23,518, of which the Office of the Secretary (OST) contributed half. The consultant's report was not published because it contained confidential material. In addition, FRA and OST assembled a panel of rail experts to discuss with senior staff the future of the railroad industry and the implications of further rail consolidations. The Volpe National Transportation Systems Center played a major role in bringing the panel together. The cost was $20,000 with OST again contributing half.

FRA's continuing role in FHWA's comprehensive truck size and weight study and highway cost allocation study has resulted in a partnership between the two agencies to further advance the truck-rail/rail-truck diversion model, a major component of each study's analysis. FRA's contribution to the diversion model for 1996 was $25,000, with an additional $10,000 to compute and attach comparable highway miles for rail moves to the Carload Waybill Sample.

INDUSTRY ANALYSIS FUNDING

Question. Please also provide a complete accounting of expenditure in FY 1996 and the request for FY 1997 for all funds used to conduct industry analysis.

What publicly available products resulted from this investment? Were each of these products submitted to the National Technical Information Service? If so, what are the NTIS numbers?

Answer. As indicated, the contract support budget is no longer divided by these categories.

ISTEA - STATE/MPO ASSISTANCE

Question. What precise role does the FRA envision for itself in assisting States and metropolitan planning organizations as they develop ISTEA-required freight transportation plans and set priorities for project funding? Does the FRA intend to market its services in this regard to the MPOs and the States? Will the FRA simply be responding to requests from MPOs and the States? What amount of funding is provided for these activities in FY 1996 and proposed for FY 1997?

Answer. FRA has been, and will continue, assisting states and MPOs in their freight planning efforts by developing training materials and evaluation tools, and collecting and sharing information on freight planning. Additionally, FRA is are working with states, MPOs, FHWA and FTA in the Partnership for Transportation Investment program under ISTEA, facilitating rail-related projects with significant public benefits. In FY 1996, FRA worked with FHWA, which has an extensive program of training and technical assistance, to develop appropriate training materials on the rail aspects of freight planning. FRA also participated in FHWA's series of Headquarters Statewide Intermodal Planning Courses for state and local transportation planners. FRA is preparing a guide on evaluating rail-related projects for states and MPOs, and is developing software for evaluating the public benefits of freight projects. FRA will offer training in the use of this evaluation software and make it available in FHWA courses. Much of the work in this area has been undertaken by FRA staff. In FY 1996 and FY 1997, some portion of the funding under Technical Assistance and Policy Analysis ($20,000 in each year) may be used to supplement staff efforts. Additionally, much of the staff work is supported by the financial, economic and traffic data maintained by the Office of Policy and Program Devlopment for general analytical purposes.

INTERMODAL TRANSPORTATION PLANNING

Question. What resulted from the numerous meetings FRA conducted to help integrate intermodal transportation planning? How much will you spend on this activity during FY 1996 and FY 1997?

Answer. As a result of the meetings conducted jointly by FRA and FHWA, many major MPOs have established freight advisory committees to consider freight transportation from an intermodal perspective. These committees typically have representatives from area shippers, railroads, motor carriers and water carriers (if appropriate) . Many excellent rail-related projects with significant public benefits have been developed by states and MPOs as a result of these efforts, including projects in California, Maine, Colorado, New Hampshire, Ohio, Illinois, New York and Pennsylvania; many other states are considering such projects. FRA will continue to work with FHWA to support the establishment of these groups; no contract funding is specifically allocated for these efforts, but some travel may be involved

Additionally, FRA initiatives to provide training and evaluation tools, as discussed above, will supplement these efforts.

FRA TRIP FOR STATE DEPARTMENT

Question. Did an FRA employee take a trip costing over $12,400 to evaluate a diesel repair facility? If yes, please provide details to explain how the trip benefited the FRA?

Answer. The trip by two FRA staff to Kazakstan was requested, and all expenses were paid, by the U.S. State Department. As part of its science and technology program with former Soviet Union countries, the State Department requested FRA technical assistance to evaluate the suitability of modernizing a Kazakstan diesel locomotive repair and overhaul facility.

Working with the U.S. Departments of State and Commerce, the trip also included rail- related discussions with the Minister of Transport and the Minister of Railways (owner and operator of Kazakstan's three railroads), and the purchase of U.S. manufactured rail-related equipment, software, etc. It should be noted that, at the time, a European firm had provided Kazakstan officials with a lucrative bid for new locomotives. However, several months after completion of the FRA trip, GE Transportation Systems obtained a $32 million contract to modernize at the diesel repair and overhaul facility, so-called 2TE10 locomotives originally manufactured in the former Soviet Union. Delivery of the first kit to Kazakstan from GE's Erie, PA, plant will start in late 1996.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

PREPARED STATEMENT OF RICARDO MARTINEZ, ADMINISTRATOR

Mr Chairman and Members of the Subcommittee

It is a pleasure to submit the President's FY 1997 budget proposal for the National Highway Traffic Safety Administration (NHTSA). The challenge facing us in traffic safety is becoming more difficult for reasons that will be discussed further. Your continued support and guidance will be critical to NHTSA as we provide national leadership to improve highway traffic safety

Introduction

Mr Chairman, NHTSA's mission is to improve traffic safety in the United States by reducing crashes, deaths and injuries, and their human consequences and direct economic costs President Clinton and Secretary Peña believe that NHTSA's mission of saving lives and reducing injuries is one of the highest priorities of the Department of Transportation NHTSA's budget proposal reflects the Administration's belief in the effectiveness of agency programs Our goal is to provide national leadership for programs that address national safety issues

NHTSA has made significant strides in improving highway safety through balanced vehicular and behavioral programs However, much remains to be accomplished and further progress will be much more difficult to attain Certain demographics make traffic safety a challenge, including growing numbers of teenagers and older drivers in our population, and increased diversity in our society Traffic crashes remain a major public health problem for the nation It is the number one cause of death and serious injury for ages 5-27 Reversing recent trends, deaths and injuries are once again increasing Preliminary data for 1995 indicate deaths exceeded 41,000 and injuries exceeded 5 million. In addition to traditional problems such as impaired drivers and unrestrained vehicle occupants, the nation is now faced with new concerns such as higher speed limits and possible action by some states to weaken their motorcycle helmet laws NHTSA's most recent economic analysis indicates that the annual cost to society from these losses from crashes was nearly $138 billion in 1990, including $14 billion in health care costs This cost is higher now. Unless significant efforts are made to reverse the trend, fatality and injury levels will continue to rise.

In February 1995, the Secretary announced a new goal to reduce alcohol-related fatalities to 11,000 by the year 2005, from the almost 17,000 fatalities in 1994 This ambitious goal will be difficult to reach unless the agency expands its efforts to identify additional effective countermeasures to reach high-risk populations that drink and drive. The national belt use rate increased to 68 percent by the end of 1995. NHTSA's objective is to increase that rate to 75 percent by 1997 A significant and immediate increase in the use of seat belts and child safety seats is a continuing priority if the agency is to achieve the potential life saving benefits from air bag-equipped vehicles. In addition, a multi-year effort is being organized to identify critical actions that must be taken to prevent air bag injuries to unrestrained and improperly restrained vehicle occupants Participants in the development and shared implementation of that plan will include stakeholders from a wide range of fields, including public health, medical and safety organizations, automotive, child restraint and air bag supply industries, and government

NHTSA's Strategic Plan "People Saving People" is the foundation for the FY 1997 budget proposal The budget was developed through the strategic planning process and is entirely consistent with the goals and objectives established in the Strategic Plan The plan represents an innovative, long-range approach to traffic safety and injury control, and is organized around three themes 1) to provide leadership and set a national safety agenda, 2) to support research and apply results to education, engineering and enforcement for reducing road casualties and associated costs, and 3) to transform NHTSA through continuous improvements The requested resources are necessary to achieve the most critical safety goals within each of the strategic theme areas

NHTSA's programs have been judged to be highly cost effective, and the agency has been cited as an "exemplar agency" under the Government Performance and Results Act (GPRA) NHTSA will provide Congress with information on actual safety performance results to judge the merits of agency programs The budget request contains performance measures and safety targets for determining the effectiveness and results of each NHTSA program

In addition, the budget supports new processes for carrying out national leadership in ways that empower state and local jurisdictions to conduct traffic safety programs This approach focuses increased attention on community leadership and responsibility for creating partnerships to carry out effective injury control projects at the local level

THE BUDGET REQUEST - HIGHLIGHTS

NHTSA's FY 1997 budget request totals $352 million, consisting of $158 million for programs funded from Operations and Research and $194 million for the Highway Traffic Safety Grants account This budget proposal represents an increase of $74 7 million over the FY 1996 enacted level This increase reflects the Administration and the Secretary's commitment, within a constrained budget environment, to allocate scarce resources to programs that address the most crucial transportation safety issues facing the nation The comparative shifts in funding for different segments of the overall Federal transportation program reflect the increased emphasis being given to traffic safety. NHTSA's programs address the fact that traffic crashes account for 94 percent of deaths and 99 percent of injuries in the U S. transportation system

Operations and Research

The $158 million requested for the Operations and Research program will permit NHTSA to respond to critical national traffic safety problems The FY 1997 program includes the following initiatives

- Auto Safety Hotline funding will provide NHTSA with the capacity to receive and respond to 1 million consumer telephone calls annually, reflecting growing demands for safety information The funding increase would develop the Hotline capacity to function as the single point of contact for consumers to request information on safety recalls, child safety seats, and other highway safety issues, and to report possible motor vehicle defects

- The New Car Assessment Program (NCAP) would be expanded to include side impact and offset frontal testing. The expansion will provide consumers information on the crashes that now produce at least 75 percent of severe injuries Offset frontal tests will be conducted to assess the likelihood of lower leg injuries which have become a much larger portion of the occupant public health problem

- The "Safe Communities" program will continue to empower local communities to take more responsibility for preventing traffic crash injuries The key is to maximize both human and financial resources The safe communities approach emphasizes injury data and costs; new partnerships with health, medical and business groups, in addition to continuing work with traditional partners, involving citizens in problem definition and decision making; and involving the prevention, acute care and rehabilitation sectors in program delivery

- The "Campaign Safe & Sober" incorporates a comprehensive campaign for states to increase safety belt usage and achieve the Secretary's target of 75 percent usage by 1997 and decrease alcohol-related fatalities to 11,000 by 2005

- The "Patterns for Life" program continues efforts to increase proper use of child safety seats and educate communities in safe bicycle and pedestrian practices. It supports and enhances ongoing nationwide child safety seat distribution programs that are being funded by the private sector.

- A railroad-grade crossing safety initiative to provide one-time competitive grants to 10-50 states is proposed To be eligible, sites must possess demonstrable crossing safety problems These grants are designed to encourage local education and enforcement program efforts

- The Partnership for a New Generation of Vehicles (PNGV) Program will ensure that PNGV developed vehicles meet existing and anticipated safety standards and other levels of safety performance. The program is at a critical point where design decisions are being made, and thus, further funding delays could preclude changes in PNGV design decisions from a safety viewpoint

- Biomechanics research efforts continue to advance the understanding of the impact injury process by developing and utilizing the latest state of the art technologies to develop test dummies, establish injury criteria, and construct mathematical models to predict injury to humans. Biomechanics expertise is used to reach out to the medical community to identify and understand the medical and biomechanical aspects of the injury process Support for the National Transportation Biomechanics Research Center (NTBRC) is also proposed. The NTBRC will be established as a multi disciplinary, intermodal entity within NHTSA. The center will support the DOT mission to prevent transportation related deaths and injuries through research and education in transportation injury biomechanics

- Crashworthiness research focuses on the development of improved air bags and advanced "smart" occupant restraints. Air bags are being improved to offer better protection to different sized occupants in more types and severities of crashes.

- Crash avoidance research facilitates the development and early deployment of cost-effective, user-friendly ITS systems to help motor vehicle drivers avoid rear end, roadway departure, lane change/merge, backing, intersection, reduced vision, and drowsy driver crashes

- Construction contract for the National Advanced Driving Simulator (NADS) was awarded February 15, 1996 When operational (planned for the spring of 1999), NADS will be used to study driver performance in crash situations. NADS will provide the tools necessary to understand causal factors in crashes and crash frequency due to improper vehicle design and driver training. NADS will also assist in providing a means to assess the role of driver age and health in crash risk NADS will provide intermodal capabilities with ITS and highway/railroad grade crossing safety applications

- NCSA's large scale crash and injury data bases are vital to safety efforts by both government and private sector entities because data are the fuel of decision making. Injury control relies on data resources describing the crash event, human, environmental and vehicle related parameters that characterize each crash, as well as details on the injury outcome and associated health and other economic costs. A major national occupant restraint usage survey will be performed.

Highway Traffic Safety Grants

Funding of $193 6 million requested for the highway traffic safety grants account will support state and community efforts to create and implement innovative and effective highway safety programs that address national safety areas mandated by Congress The FY 1997 program consists of the following initiatives

- Section 402 State and Community Grants - $166 2 million. Funding will provide grants to help states and communities strengthen their highway safety laws and programs Funding of $123 million supports the base program to continue state activities in the national safety priorities. Also, $15 million is requested for highway-related grants traditionally funded in the FHWA Section 402 program. Funding of $28.2 million will expand the Safe Communities initiative begun in FY 1996 to focus injury control at the local level

- Section 410 Alcohol-Impaired Countermeasures Grants - $25 million Many states are actively pursuing new or improved laws to reduce drinking and driving At the end of FY 1995, a total of 29 states had become eligible for Section 410 grants By the end of FY 1997, 38-41 states are expected to qualify

- National Driver Register - $2 4 million. Currently, 38 States have completed their transition to the problem driver pointer system (PDPS) It is expected that all States will have converted their operations from the old system to the new system by November 4, 1996 Regular operations will consist of computer processing of state inquiries and updates, plus related technical and administrative support Shifting major tasks to state management will continue to reduce Federal funding needs

FY 1997 BUDGET REQUEST - BY PROGRAM

SAFETY PERFORMANCE STANDARDS PROGRAM

The FY 1997 budget seeks $5 741 million for the Safety Performance Standards program (rulemaking and consumer information activities) to fund vehicle safety standards, New Car Assessment Program (NCAP), fuel economy, theft and several important consumer information programs The Safety Performance Standards program develops and issues Federal motor vehicle safety standards and consumer information to improve the safety performance of motor vehicles and equipment and to encourage the public to seek and use available safety information on selecting new vehicles or vehicle equipment

Vehicle Safety Standards

The budget request of $589 thousand will be used to conduct cost studies related to petitions and ongoing rulemakings expected to be completed in FY 1997 or later. The FY 1997 program will focus on responding to rulemaking petitions; exploring new technologies for side impact protection and improved head restraints; completing work on possible upgrades to fuel systems, completing work begun in earlier years on occupant protection in rollover crashes such as ejection mitigation; and research on child restraint compatibility issues. New initiatives to begin changes to labeling requirements, to improve consumer information and to simplify standards will be undertaken following the recommendations received from the consumer information studies done in fiscal years 1995 and 1996

The FY 1997 funding also will be used to address the issue of air bag aggressivity, particularly as it relates to the safety of children Activities may include sled testing of various air bag/inflator characteristics and addressing alternative labeling and warning requirements Final regulatory actions in several of the rulemakings mandated in the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 were completed in the passenger car safety area early in FY 1996 A rule on side impact testing for light trucks and vans was published in July 1995, and a rule for increased head protection in crashes was published in August 1995 Other final rules published were a rule permitting installation of an air bag-cut off switch for passenger side air bags, in vehicles having limited or no rear seats, to prevent the potentially dangerous interaction of rear facing child seats and deploying airbags, published in May 1995, a rule requiring rear facing child seats to be labeled with a warning against using them in front seats where occupants are protected by air-bags; a rule extending door lock requirements to the rear doors of LTVs, published in September 1995; and a rule to facilitate international harmonization of braking standards for passenger cars, published in February 1995

In the area of heavy vehicle safety, other final rules published were anti-lock braking systems and stopping distance requirements, in March and December of 1995 and February 1996, and a rule on the strength of underride guards, in January 1996 In the area of child safety, final rules were published to upgrade testing of child restraints and to require warning labels on rear-facing child safety seats In addition, joint efforts were initiated with FAA to address the certification of child safety seats for use in aircraft and research was initiated on the concept of a uniform child seat attachment (ISOFIX) As part of the agency's regulatory reform effort, more than 30 rules and regulations have been identified for amendment or rescission. Rulemaking actions on all of these are expected to be completed by the end of the FY 1996 A regulatory negotiation on vehicle lighting was initiated in August 1995, and an NPRM evolving from these negotiations is expected in late 1996.

New Car Assessment Program (NCAP)

The agency's Strategic Execution Plan (SEP) recognizes the critical need for increasing and expanding safety information for consumers A new initiative defined in the SEP requires the development of a complete safety rating system for consumer information. This initiative directly supports the SEP recommendation "to improve the safety information the agency provides consumers" and several of the agency goals, in particular the objective of Goal 1 "as an injury measure, stimulate the market for safer motor vehicles and equipment" and Goal 6 "mitigate the consequences of motor vehicle crashes."

The agency proposes to respond to these recommendations and goals by expansion of NCAP testing into side impact and frontal offset crash modes The FY 1997 budget request of $3 542 million provides support for this new initiative and for promoting and distributing the resulting relative safety information to consumers. The program will continue to provide consumers with relative frontal crash safety information on more than 80 percent of the new vehicles With the addition of side impact testing, consumers will be provided with data on the relative crashworthiness of passenger vehicles in the two most common injury-causing crash events (frontal and side impact) The agency's enactment of the Federal motor vehicle safety standard for improved side impact protection provides the basis for this NCAP enhancement All passenger cars are required to meet the improved side impact standard in 1997 As shown by the frontal impact NCAP data, manufacturers have responded by significantly improving the frontal crashworthiness of passenger vehicles beyond the level required by the mandatory standards Similar manufacturer response is expected with the enhancement of NCAP into side impact testing Side impact testing is the only viable method available for developing this consumer information The program will provide consumers with relative side crash safety information on approximately 50 percent of the new vehicles.

Offset crash test modes will be evaluated based on data from the Insurance Institute for Highway Safety, international crash test programs, and NHTSA's research activities. Tests will be used to evaluate and select the appropriate conditions and provide initial consumer information in these crash modes. This enhancement of NCAP will provide consumers with a full understanding of the potential safety that a vehicle may provide in high speed front and side crashes and will lead to an overall vehicle safety rating for these crash modes.

NCAP promotional activities will continue to develop and distribute brochures, video news releases, public service announcements, and NCAP exhibits and to expand these activities to include side impact and offset frontal crash information A joint venture with the American Automobile Association and the Federal Trade Commission resulted in the production and distribution of 225,000 brochures titled "Buying a Safer Car" This successful cooperative effort has been continued and a second brochure was released in February 1996

The results of the NCAP frontal, frontal offset and side crash testing will provide consumers with useful occupant protection information on passenger vehicles. Safety continually ranks as a leading consumer issue in recent surveys of motor vehicle purchasers and in recent public meetings across the country This information assists consumers in making their purchasing decisions and motivates vehicle manufacturers to provide higher levels of occupant protection. In 1995, an increasing number of consumers have requested data from the Auto Safety Hotline and the automated FAX-back system. These data are made available through regular news releases, consumer publications (e g , Consumer Reports, with a distribution of approximately 5 million, uses NCAP results to classify vehicle safety in their annual March issue), and NHTSA and AAA brochures.

Fuel Economy Program

The budget request for $1 56 million includes $1 5 million to develop an environmental impact statement (EIS) for future fuel economy standards Although the agency has prepared environmental assessments for each fuel economy rulemaking in the past, these rulemakings have covered at most three model years. This EIS would include a thorough examination of the overall fuel economy program to forecast potential environmental impacts of future standards, whether they are higher or lower than current standards. The agency also is requesting $60 thousand to maintain a database of production and financial information on manufacturer plants and product lines This information will enhance NHTSA's decision making capability on future corporate average fuel economy standards.

Motor Vehicle Theft Prevention Program

The budget proposal includes $50 thousand for the theft prevention program This is a decrease from the FY 1996 enacted level because the agency has asked for a repeal of the requirements for the collection and analysis of insurance information relating to the effectiveness of the parts marking standards. This information has not been useful in addressing the problem The requested funding would satisfy the remaining requirements of the statute and analyze data on stolen vehicles from the FBI to determine the most likely high theft vehicle lines and to verify if anti theft devices have been effective in deterring motor vehicle theft

VEHICLE SAFETY ASSURANCE PROGRAM

The budget request includes $10 901 million for the Defects Investigation, Vehicle Compliance, Vehicle Domestic Content Labeling and Odometer Programs These programs ensure that the safety benefits associated with Federal safety standards are achieved and that motorists are not exposed to an unreasonable safety risk due to a motor vehicle defect. NHTSA investigators test motor vehicles and motor vehicle equipment for performance and design defects and remove defective vehicles and equipment from the nation's highways. In addition, this request supports programs to prevent odometer fraud, ensure compliance with motor vehicle fuel economy standards and audit vehicle domestic content labeling

Defects Investigation Program

The Defects Investigation Program develops partnerships with consumers to increase awareness of highway safety and acts as a central component in injury prevention. During 1995, the Defects Investigation Program processed 306 recall campaigns, involving more than 17.8 million vehicles, to remove unsafe vehicles and equipment from the nation's highways More than one-fifth of the 1995 recalls, representing 64 percent of the vehicles, were influenced by NHTSA investigations. Critical activities focused on safety belts, air bags, child safety seats, and school buses The Defects Investigation Program is responsible not only for conducting investigations into these and other areas of concern, but also for monitoring the scope of the recall campaigns, the adequacy of the remedy, and the effectiveness of owner notifications.

The success of the Defects Investigation Program depends largely on calls to the Auto Safety Hotline Proposed funding for the Hotline of $1.8 million will provide the agency with the capacity to receive and respond to 1 million consumer telephone calls annually, thereby responding to significant growth in the public's demand for traffic safety information. This request will support NHTSA's development of the Hotline as the single point of contact for consumers to request information and report possible motor vehicle defects. During 1995, the Hotline received over 800,000 calls, compared to 533,800 in 1994 Replacement of Hotline equipment with newer, emerging technologies will enable the agency to integrate higher standards of customer service in the areas of responsiveness, timeliness, availability and accuracy Calls to the Auto Safety Hotline are the foundation of the Defects Investigation

Program During 1995, 75 percent of NHTSA's defect investigations were initiated by calls to the Hotline

Vehicle Safety Compliance

The FY 1997 Vehicle Safety Compliance Test Program will include 20 tests for verification of compliance to the requirements of the dynamic side impact protection standard and 30 tests for verification of compliance to the requirements of several frontal occupant crash protection standards This program will provide an assessment of side impact and crash protection performance across a spectrum of vehicles The child restraint systems and motorcycle helmet compliance test programs will continue to test new restraint systems and helmets in the marketplace New standards for FY 1996, FMVSS 303, Fuel System Integrity -- Compressed Natural Gas (CNG), and FMVSS 304, CNG Fuel Tanks, will be included in the FY 1997 vehicle safety compliance program. This program will ensure that the safety benefits associated with the levels of performance established in the safety standards are being realized.

Vehicle Domestic Content Labeling

The Vehicle Domestic Content Labeling Program is a new initiative in FY 1997 and funding of $500 thousand is requested to implement this program Its objective is to monitor the accuracy of manufacturer information presented on domestic content labels affixed to new vehicles by conducting audits of selected car lines. In FY 1997, four car lines and two manufacturers will be audited. Increasing the domestic content of Japanese automobiles and light trucks sold in the U.S. is a goal of the U.S./Japan trade agreement

Odometer Fraud Program

The budget request for the Odometer Fraud Program is $100 thousand. This program deters odometer tampering which rolls back vehicle miles for the purpose of illegally inflating the value of used cars. This fraud tends to create unanticipated maintenance and repair costs for consumers NHTSA investigators work with states to enhance local odometer fraud programs Odometer fraud funding will enable the agency to provide contract support for local odometer fraud investigations, recover funds for defrauded consumers, and publicize the odometer fraud problem Aggressive enforcement of the Federal odometer fraud laws will be continued by conducting investigations of large-scale, interstate odometer tampering schemes for criminal prosecution by the U.S. Department of Justice

HIGHWAY SAFETY PROGRAMS

The budget request provides $31.160 million for the Highway Safety Program. This reflects an increase of $3 million over the FY 1996 enacted level, and is focused primarily on expanded Safe Communities injury control demonstrations, enhanced alcohol and injury control demonstrations, enhanced alcohol and occupant protection projects in Campaign Safe & Sober, and a new Rail-Highway Safety grant program. Resources are also included for police traffic enforcement, emergency medical services, and the Patterns for Life" program to increase proper use of child safety seats Programs are also planned in the areas of state/local program evaluation, traffic records and highway safety research

Safe Communities

The Safe Communities program seeks funding of $1 8 million to fund grant programs for demonstration and evaluation of community injury control partnerships NHTSA will work with partners such as the National Center for Injury Prevention and Control (NCIPC), National Association of Governor's Highway Safety Representatives (NAGHSR), National Sheriffs' Association, and others to provide grants to four additional sites/organizations to demonstrate effective leadership and ways to define the character of local traffic injury problems and mobilize the community to take effective action Potential grant recipients include academic institutions, trauma centers, hospitals, and other not-for-profit local groups with expertise in galvanizing community action and evaluating community programs By empowering communities to form comprehensive injury control partnerships and programs, NHTSA is educating the public to view motor vehicle crashes as an injury and public health problem, and also expanding the traffic safety constituency to include both health care providers and businesses as major players in preventing and controlling traffic-related injuries.

The Safe Communities concept reflects the fact that traffic-related deaths and injuries are primarily a local community problem and that nearly all effective preventive efforts must be local in nature Thus, the Safe Communities demonstration program is crucial to the process of nurturing community-level program focus. A demonstration program is needed to implement an effective effort which includes (a) linking crash and medical data, (b) analyzing these data relationships, (c) expanding partnerships among community level organizations (especially among businesses and health care providers); (d) increasing citizen involvement, (e) fostering media outreach efforts, and (f) implementing comprehensive and integrated actions to control injury in the community The results from the demonstration sites will be used in the technology transfer program to provide assistance to states on what works and does not work, and under what conditions.

Patterns for Life

The request for $745 thousand will continue the establishment and mobilization of a community outreach and service infrastructure to educate communities about traffic safety needs, provide child safety seats to families and other care givers who could not otherwise afford them, instruct community members in the correct use of child seats, and educate communities in safe child bicycle and pedestrian practices. During FY 1997, the second year of program implementation, Patterns for Life will maintain its focus on the development of community action programs directed at child passenger protection, pedestrian safety and bicycle safety In conjunction with ongoing nationwide child safety seat distribution programs that are funded by the private sector, the program will continue working with these private sector partners to effectively place child seat distribution centers to serve low-income and special needs populations The program will continue promoting community partnerships in these locations by maintaining cooperative agreements with national fire and rescue, law enforcement and health and medical organizations

Alcohol Program

The request for the alcohol program is $9 million, to continue and expand NHTSA's success in reducing alcohol-related traffic crashes, injuries, fatalities and costs Alcohol-related fatalities in 1994 were 16,589 or 24% less than the 22,084 recorded in 1990 and 34% less than the 1982 total of 25,170 Alcohol was involved in 41% of fatal crashes in 1994, down from 50% in 1990 and 57% in 1982. If alcohol were still involved at the 1982 level, 15,734 additional persons would have died on the nation's highways in 1994 Through our "Partners in Progress" effort an ambitious impaired driving agenda for the nation will be developed This agenda, developed in concert with our partner organizations, will lay the groundwork for all partners to come together to implement effective programs to address this issue While new strategies will be tested and promoted the agency will continue to encourage a balanced program that includes effective legislation, enforcement, and prevention programs.

NHTSA will also expand impaired driving partnerships with culturally diverse groups. The agency will focus on high risk groups such as repeat offenders and youth. New strategies will be tested for reaching the 21-34 age group. NHTSA will continue the partnerships that conduct National Drunk and Drugged Driving Awareness Month, Techniques for Alcohol Management (TEAM), the Network of Employers for Traffic Safety (NETS), the AD Council's impaired driving campaign, the National Organizations for Youth Safety (NOYS), and other motor vehicle injury prevention initiatives.

Occupant Crash Protection

Funding of $6 213 million is requested to increase the national safety belt use rate to 75 percent by 1997 as part of the national traffic safety initiative Campaign Safe & Sober Originally conceived as a two year program ending in FY 1996, the states and other users have requested that the Campaign be extended through FY 1998 In the occupant protection area, the Campaign strategies are to increase the number of states with clear, enforceable occupant protection laws and to increase the use of highly visible enforcement efforts at the state and local level to increase compliance with these laws.

Increasing the use of safety belts and child safety seats is one of the most effective means available for preventing the deaths and injuries resulting from all traffic crashes, including alcohol-related crashes To reach these objectives, three courses of action will be pursued in conjunction with participating safety and private sector organizations 1) support state legislative efforts to enact primary enforcement safety belt use laws and upgrade child passenger safety laws, 2) encourage and support periodic, highly visible occupant protection use law enforcement programs in the states, and 3) implement a public information and outreach effort to support these legislative and enforcement activities, and alert the public to the dangers posed by air bags to unrestrained and improperly restrained occupants Moreover, the FY 1997 program will build on previous experience and focus on providing updated quarterly public information materials for state and local Campaign participation, promoting the conduct of coordinated state and community efforts that demonstrate the effectiveness of periodic, highly visible enforcement programs, upgrading state belt use laws to include primary enforcement and expanding age coverage of child passenger laws, implementing child restraint and safety belt programs at the community level, and expanding outreach efforts to reach high risk populations Information and technical assistance will be packaged and made available to states, targeted groups, and advocates addressing the benefits of upgrading occupant protection laws Improved approaches and strategies for organizing and implementing state efforts to upgrade laws will be identified and offered to states through a variety of technical assistance mechanisms including workshops, awards programs, quarterly Traffic Safety Digests, strategy sessions, team meetings, and testimony

New materials will be developed for the national "Vince and Larry" public service campaign, building on current materials which are targeted to young male drivers in pick-up trucks, high-risk youth, and children who have outgrown child safety seats Three additional TV spots designed to help local jurisdictions publicize their enforcement-related activities will be re-released to support Campaign Safe & Sober. In addition, new materials will be developed to inform consumers about new vehicle occupant protection safety equipment

Speed Enforcement and Research

The Police Traffic Services request of $1 226 million is for speed management, enforcement and research This program will focus on speeding--exceeding the posted speed limit or driving too fast for conditions In 1994, speed was a factor in 30 percent of all fatal crashes, and 12,480 lives were lost and over 583,000 people injured in speed-related crashes. Speed costs America more than $23 billion each year, or $44,190 per minute. Speed is also directly linked to other unsafe driving practices including very low belt usage and impaired driving Moreover, the repeal of the National Maximum Speed Limit requires states to confront the acute problems related to speeding. The states will expect NHTSA to provide increased technical assistance, develop enforcement strategies, prepare public information and education, support demonstration projects and conduct research. Research will continue to better address dangerous speed-related behaviors and problems. These research activities will include in-depth crash investigations to determine how and when speed contributes to speed causation and what circumstances increase the risk of speed-related crashes. Further, the national survey assessing the perceptions and attitudes drivers have of speed will be continued. The results of this research will be used to identify population groups that are most at risk Countermeasures will be developed to reduce risk, while increasing compliance in these at-risk populations

Emergency Medical Services

The budget provides $1 18 million for emergency medical services (EMS) to fulfill NHTSA's national leadership role in this area. It will focus on the challenge of managed care integration and its emphasis on injury prevention. NHTSA will: (a) implement results of the EMS Agenda for the Future, (b) improve uniform pre-hospital data collection, (c) develop materials that recognize diversity among EMS patients and providers; (d) focus on improving EMS training and delivery in rural areas; (e) educate the public on how to access the EMS system and bystander care, and (f) enhance partnerships focused on injury prevention and managed care In addition, ITS technologies will be demonstrated to show a decrease in rural preventable mortality Research methodologies will also be defined to allow for system effectiveness evaluation NHTSA will collaborate with other Federal agencies to pool resources and share technical expertise as identified in the 1995 EMS Memorandum of Understanding between the Department of Transportation (DOT) and the Department of Health and Human Services (HHS)

Pedestrian and Bicycle Safety

The budget requests $474 thousand for the pedestrian and bicyclist program. The program supports the Secretary's initiative to focus on this area, especially child safety, through a joint FHWA/NHTSA program Efforts will focus on increasing the use of bicycle helmets, especially among young riders, by promoting state and local laws and ordinances to require helmet usage This activity will be conducted in close coordination with the Centers for Disease Control and Prevention, the Consumer Product Safety Commission, and several additional public and private sector organizations In addition, a major research and field test program has been started to address the alcohol-impaired pedestrian problem A component of this program is the development of public information materials and a law enforcement strategies manual

Rail-Highway Crossing Safety Incentive Grant Program

The budget request of $3 million would award 10-50 competitive grants for community-based education and enforcement efforts to improve safety at rail-highway crossings and to reduce railway trespasser deaths The program targets communities that have a demonstrable crossing safety problem, a broad coalition of support for increased crossing safety and trespasser prevention efforts, a commitment to share in program resources, and a creative plan of action This program is a one-year, research-oriented program The purpose is to identify successful crossing safety education and enforcement techniques that can be implemented by communities nationwide Rail-highway crossing and railway trespassing are serious and stubborn safety problems Annual crossing fatalities have fluctuated around 600 since 1983 Annual trespasser fatalities have numbered over 500 every year since 1990 Moreover, the need for crossing safety education is clear surveys show a persistent gap in driver knowledge about safe behavior at crossings, particularly among young drivers, whose numbers will grow substantially over the next 15 years The rail-highway crossing safety problem is cross-modal, and this program is the result of a cooperative effort by the Federal Railroad Administration (FRA), the Federal Transit Administration (FTA), the Federal Highway Administration (FHWA), the National Highway Traffic Safety Administration (NHTSA) and the DOT's Office of the Secretary (OST) The program will also complement Operation Lifesaver, Inc Local Operation Lifesaver chapters will be eligible to apply for grants and can help guide the program, but the program will also attract new partners in the crossing safety effort

RESEARCH AND ANALYSIS PROGRAM

The FY 1997 budget request includes $56 394 million for Research and Analysis to advance the scientific understanding of crash injuries, acquire and analyze crash and injury data, study improvement of vehicle structural designs, develop performance guidelines for advanced technology collision avoidance systems, and develop new safety tools to strengthen NHTSA's science and technology base

Partnership for a New Generation of Vehicles (PNGV)

The agency is requesting $5 million for this initiative. In September 1993, President Clinton, Vice President Gore, and the Chief Executive Officers of Chrysler, Ford, and General Motors announced the "Partnership for a New Generation of Vehicles" (PNGV) program, aimed at strengthening U.S. competitiveness and protecting the environment. The overall goals of the PNGV program include developing a range of technologies to yield automobiles with a three-fold improvement in fuel efficiency and reduced emissions, without compromising other features such as performance, safety, and utility as well as developing and introducing manufacturing technologies and practices that will reduce the time and cost associated with designing and mass producing this new vehicle. NHTSA is the Department's focal point for the PNGV program. As tremendous changes occur in automobile design and methods of powering the vehicle, funding will ensure that PNGV developed vehicles will meet existing and anticipated safety standards and that the overall crash and other safety attributes are not compromised by their light weight and the new advanced materials used in production of the vehicles. This request is supported by the National Research Council's report, "Review of the Research Program of the Partnership for a New Generation of Vehicles, Second Report" where concern was expressed about addressing and resolving PNGV transportation policy and safety issues.

It is absolutely critical that the safety analyses be done in the early design stages of the PNGV program, rather than later. Critical design decisions will be made on the PNGV vehicle regarding the basic vehicle shape, size, structural materials, and weight; and the power and energy storage methods will be selected. Without sufficient resources to develop and use the safety analysis tools in these selections, it would be too late to influence the design of the first PNGV demonstration vehicles. That means there would be a good possibility that the selected designs could later be found to be deficient or unacceptable from a safety standpoint. This could send the PNGV demonstration vehicle designs back to "square one" and set the PNGV program back several years

National Advanced Driving Simulator (NADS)

NHTSA is requesting $10.5 million for the National Advanced Driving Simulator The NADS is a key element of NHTSA's Crash Avoidance Research Program. This driving simulator will allow the agency to safely conduct research into the complex driver-vehicle interactions that contribute directly to the cause of more than three-quarters of all vehicle crashes The NADS will also be used extensively to test and evaluate advanced safety and driver information technologies currently being developed in the ITS Program. Without the NADS, it would be extremely difficult to determine the realistic effectiveness of crash avoidance countermeasures especially in maneuvers that are close to real-world operations of vehicles. Another significant area of research planned for the NADS is in the health sciences field. Examples include developing "fitness to drive criteria" for younger and older drivers, or drivers with certain medical conditions such as rheumatoid arthritis, degenerative eye disease, sleeping disorders, or Alzheimer's disease.

On February 15, 1996, NHTSA awarded a $34.1 million contract to TRW Transportation Systems of Sunnyvale, California, for the final design, construction, integration, test, and installation of the NADS. NHTSA's FY 1997 request will provide partial funding for the construction of the Simulator. The NADS will be installed in a dedicated facility constructed at the University of Iowa's Oakdale Research Park. Current plans call for NADS to become operational in the spring of 1999.

In the FY 1996 appropriations bill, Congress directed the Department to allocate the cost of the NADS among participating modal administrations. To implement this direction, NHTSA has provided detailed technical briefings on the NADS to senior management officials in the Federal Highway Administration (FHWA) , Federal Transit Administration (FTA), and Federal Railroad Administration (FRA). FHWA has proposed that $4 million be reimbursed to NHTSA from its ITS program to fund NADS in FY 1997. In addition, a high level of interest has been expressed by FRA for using NADS in highway/railroad grade crossing safety research and by

FHWA's Office of Motor Carriers for research into truck driver fatigue and drowsiness problems NHTSA is continuing its outreach efforts to make the NADS a truly intermodal program while reaching out to other Federal agencies to secure additional non-DOT funding for the NADS project

Crash Avoidance Research

NHTSA is requesting $4 million to fund a new initiative in the Crash Avoidance Driver/Vehicle Performance area This research will focus on conventional vehicle component research to help drivers avoid crashes and decrease crash severity for those crashes that still occur, through improving visibility, directional control and braking (including anti-lock braking systems) and rollover stability These would include regulatory support for lighting, handling and stability performance of vehicles, defrosting and defogging systems and wiper systems which are non-ITS in nature This research would continue to foster the development and early deployment of affordable, reliable, user-friendly products for improving the collision avoidance of motor vehicles Also, $597 thousand is requested to conduct heavy vehicle research New measures for anti-lock braking system performance will be developed for trucks, buses and trailers Improvements in rollover stability (particularly for tanker trucks) will be investigated A tire research program will examine methods to improve truck tire traction, and reduce the number of crashes resulting from tire failure due to improper inflation pressure In addition, research programs will attempt to find ways to reduce the severity of crashes between heavy trucks and cars, and improve crash protection for heavy truck occupants

Intelligent Transportation Systems (ITS)

Funding of $26.4 million is requested for ITS in the Federal Highway Administration's budget and will be reimbursed to NHTSA to fund ITS This funding also includes $4 million for the National Advanced Driving Simulator (NADS) NHTSA will continue to provide leadership within DOT for improving motor vehicle safety on the nation's highways The NHTSA/ITS collision avoidance program is a key contributor in addressing this priority The requested funding will allow NHTSA to continue to focus on the safety benefits in the Department's ITS program The funding will support the continuing efforts by NHTSA in the development of advanced collision avoidance systems through the development of performance guidelines for effective ITS crash countermeasure systems, and participation with private sector partners in facilitating deployment of fully developed technologies These advanced collision avoidance systems have the potential to play a significant role in the agency's injury prevention emphasis by reducing the number of collisions and resulting deaths and injuries on the nation's highways Additionally, NHTSA has initiated an assessment of the safety benefit potential of various ITS collision avoidance countermeasures being developed. This is the first effort in this area and will lead to a comprehensive effort to quantify potential benefits of ITS countermeasures This funding will provide for continuing the development of performance guidelines for collision avoidance systems, utilization of newly-developed research tools for assessment of benefits and expansion of our system design knowledge base

Biomechanics Research

The funding request for Biomechanics Research is $7.45 million Biomechanics research efforts continue to advance the understanding of the impact injury process by developing and utilizing the latest state of the art technologies to develop test dummies, establish injury criteria, and construct mathematical models to predict injury to humans. In addition, the agency utilizes biomechanics expertise to reach out to the medical community and together identify and understand the medical as well as the biomechanical aspects of the injury process NHTSA is working with partners in the medical community to look out beyond the hospital doors and provide information to vehicle designers to improve crash protection. Further, the agency is undertaking injury studies in hospitals to make those in the medical community more aware of the mechanics of crashes to assist in treatment protocols Engineers will also learn more about vehicle characteristics which can cause crash injury These efforts will help to integrate the body of knowledge involving vehicle design, biomechanics and medicine of injury, and accelerate its application to the prevention of motor vehicle crash injuries.

Research and development efforts in biomechanics are essential for NHTSA's continued success in mitigating and preventing automotive impact injuries. While NHTSA's biomechanical expertise and knowledge have been directed in the motor vehicle area, those capabilities are applicable to understanding and mitigating the many hazardous impact situations of concern to the other modes within the Department, as well as other agencies and entities inside and outside the Government The National Transportation Biomechanics Research Center (NTBRC) will be established as a multi disciplinary, intermodal entity within the agency It will support the DOT mission to prevent transportation related deaths and injuries through research and education in transportation injury biomechanics. By producing improved dummies needed for physical impact tests and by producing computer models of the human body for "virtual" impact tests, the NTBRC will seek to provide the tools needed to ensure the safety of future travelers.

Many biomechanics research projects in NHTSA and DOT are minimally funded and staffed Therefore, research is usually done sequentially, a little at a time. By enlisting others in cooperative biomechanics projects, of mutual benefit, parallel research can reach a final product sooner Further, there is a natural synergism in having biomechanical scientists from around the world work together to a common goal. DOT already has a few small cooperative biomechanics projects with the military, the Department of Energy (DOE), the Centers for Disease Control and Prevention (CDC), academia, and others. However, more can be done with the NTBRC as a Center of Focus Because of the importance of biomechanics research in many organizations around the world, and the difficulty in coordinating the research , there is duplication of effort. The job of the NTBRC is to turn "duplication of effort" into "parallel effort" with effective communication and coordination.

With the requested funding for the NTBRC, the agency expects to expedite development of a new and improved small female dummy based on the new average size male dummy currently being completed by NHTSA. Improved child dummies could expedite child safety in cars with air bags and other transport modes. The agency could expedite the development of human models of different sizes, ages, etc., to allow "virtual" testing and evaluation of impact safety in all types of transportation crashes and in all impact injury situations. NHTSA could also expedite its understanding of the complex mechanisms of head and brain injury in impacts and in evaluation methods. With the synergism provided by the NTBRC collaborations, many of these new biomechanical physical and analytical tools could be available in the next few years. Without funding for the NTBRC, it could be well into the next century before these new research tools are ready for use in saving lives and preventing injuries.

Vehicle Safety Systems

The budget proposes $6 5 million for vehicle and component development. Funding will provide continued progress toward establishing a technical basis for advancing vehicle occupant crash protection and formulating vehicle crashworthiness policies and regulations The request supports the development of occupant protection technologies. Frontal, side, and rollover crashes account for most of the deaths and injuries to occupants of passenger cars and light trucks and vans. Ejections, pedestrian impacts, and fires also cause crash death and injury. The goal is to provide improvements in vehicle structure and occupant compartment design, in combination with improvements in restraint systems. These improvements require research in test procedures, biomechanics of injury likelihood measurement, and countermeasure development and evaluation. A critical aspect of this program is to ensure that the test protocols being developed reach an optimum balance between international harmonization and the need for motor vehicle safety in the U.S

National Center for Statistics and Analysis (NCSA)

The budget request for NCSA's data collection and analysis programs is $21.5 million The data collected by NCSA is vital to the vehicle and behavioral programs of NHTSA, FHWA and other Departmental programs, state and local governments, as well as the vehicle manufacturers, insurers, and highway safety public interest groups. Injury control relies on data resources describing the crash event, the human, environmental and vehicle related parameters that make each crash unique as well as details on the injury outcome and associated health and other economic costs Data are collected on a census of fatal crashes through the Fatal Accident Reporting System (FARS) and on a nationally representative set of all traffic crashes through the National Accident Sampling System (NASS) Further data is collected directly from states and describe statewide police reported crashes These data bases serve as the basis for planning and implementing successful vehicle and behavioral safety programs by Federal and State agencies as well as the private sector Analysis of the data supports problem identification, program planning, consumer education, and program evaluation. Plans also call for a major occupant protection usage survey.

A report from the Crash Outcome Data Evaluation System (CODES) project recently was provided to both the House and the Senate These results, based on data from successfully linked statewide crash and medical outcome data files in seven states, provided the agency with evidence that people who do not use their safety belts or motorcycle helmets, and are involved in a crash, incur medical expenses that are greater than the expenses incurred by those who use these devices We now know that the use of occupant protection devices not only save lives, they also save money Because these data have proved invaluable to the seven CODES states in understanding the true costs of traffic crashes as well as understanding the magnitude of problems related to drunk driving, speeding, safety belt and motorcycle helmet use NHTSA has requested funding to provide small grants (up to $200 thousand) to seven or eight additional states to help them successfully link their crash and health care data NCSA will also continue efforts to provide technical assistance to those states receiving grants and any others interested in linking crash and medical files to support their highway safety programs

Other Research Resources

Finally, $40 thousand is provided for Technology Transfer, and $800 is included for the Vehicle Research and Test Center Please note that VRTC resources were formerly included in the Operating Expenses category

HIGHWAY TRAFFIC SAFETY GRANTS

A total of $193 6 million is requested in Highway Traffic Grants for 1997 The highway safety grant programs are a major tool in the effort to reduce deaths and injuries on the nation's highways, and at the same time reduce Federal, state and local costs. The benefits of traffic safety programs exceed their costs by very large ratios, up to 31 to 1. The economic benefits of traffic safety programs exceed their costs by a 9 to 1 ratio This clearly indicates that additional dollars in these program will be multiplied many times in terms of the benefits realized

NHTSA is currently assessing the highway safety grant program Detailed assessment reports have been completed for four of the ten states studied From the results of these four states an interim report has been prepared presenting the key features and achievements that are emerging as characteristic of the highway safety program. The accomplishments of state highway safety programs and the contribution of Federal grants and technical assistance can be clearly identified The highway safety program is a textbook example of how a small amount of Federal funding can catalyze changes in the nation's approach to safety.

Safe Communities

The Safe Communities initiative is a two-prong effort that includes $28 2 million to be funded as a distinct program activity within the Section 402 grant program, and a $1 8 million demonstration program for community injury control partnerships funded in the Highway Safety Program within the Section 403 Program The Safe Communities approach will reduce motor vehicle crash injuries and provide significant economic, health and social benefits. The Safe Communities initiative within Section 402 is a community-based injury control approach to reducing traffic-related injuries (as well as fatalities and health care costs). The Safe Communities initiative involves all elements of a community, including new partners in the health, medical and business communities in designing approaches for preventing motor vehicle injuries Data linkage focusing on costs, and expanding partnerships and citizen involvement and input are defining characteristics of Safe Communities. The changing face of health care financing reflects aligning incentives for prevention. As injuries are extremely costly, now is the time to focus the attention of the health care community on prevention of traffic injuries

Section 402 - National Safety Priority Programs

The budget requests $166 2 million for the Section 402 program, to provide grants to help states and communities strengthen their highway safety laws and programs. The FY 1997 Section 402 request includes the base program to continue state activities in the national safety priorities -- $123 million for traditional NHTSA programs and $15 million for programs traditionally funded by FHWA -- and $28 2 million to expand the Safe Communities initiative begun in FY 1996 Section 402 focuses on key national priorities identified by Congress, such as impaired driving, safety belt and child seat use, speed control, emergency medical services, and roadway safety

The Department has combined the NHTSA and the FHWA Section 402 grants into a unified request for FY 1997, to streamline grant management and simplify state interaction with the agencies This movement toward process efficiencies at the Federal level is consistent with NHTSA and FHWA efforts to streamline grant processes for the states. In FY 1996, 16 states are pilot-testing a new initiative in Section 402 grant management in which states set their own performance goals and measurements States can also develop their highway safety plans without the need for Federal approval All states have been given the opportunity to participate in this pilot in FY 1997.

Currently, the nation is experiencing life-saving results from highway safety grant activities. Alcohol-related fatalities dropped from 50 percent of total traffic fatalities in 1990 to 40 8 percent in 1994 This significant drop is due in large measure to the efforts of state programs supported by Section 402. The safety belt use rate reached 68 percent by the end of 1995, again due to state programs supported by 402 grant funds. NHTSA will continue to recognize and document outstanding state highway safety accomplishments supported by Section 402 grants through continued dissemination and Internet broadcast of the "Traffic Safety Digest," a compendium of successful projects.

Section 410

Funding for the Section 410 Impaired Driving Countermeasures Grant program is requested at the full authorization level of $25 million, due to the high level of state interest in this program and state success in meeting the legal requirements of Section 410. Many states are actively pursuing new and improved laws to reduce drinking and driving, such as administrative license revocation, 02 BAC laws for drivers under age 21, and .08 BAC laws At the end of FY 1995, a total of 29 states had become eligible for Section 410 grants. NHTSA expects that as many as 36 states may qualify by the end of FY 1996, and 38-41 states by the end of FY 1997.

The National Driver Register

The funding request for the National Driver Register is $2.4 million. Currently, 38 States have completed their transition to the problem driver pointer system (PDPS). It is expected that all States will convert operations from the old to the new system by November 4, 1996. Agency operations will consist of computer processing of state inquiries and updates, plus related technical and administrative support Shifting major tasks to state management will continue to reduce Federal funding needs

QUESTIONS SUBMITTED BY SENATOR HATFIELD

SAFETY PERFORMANCE STANDARDS PROGRAM

Question. Please prepare a table indicating the amount actually appropriated and the amount actually spent for the different major categories and subcomponents of the Safety Performance budget for each of the last three years. Please explain any deviation or reallocation of funds.

Answer. There were no deviations or reallocation of funds for this program in the last three years. The obligated amounts in the following table are an accurate reflection of funds spent for requested programs.

FY 1993, 1994, AND 1995
SAFETY PERFORMANCE STANDARDS CONTRACT PROGRAM

(Dollars in Thousands)

PROGRAMS	FY 1993 APPROP.	FY 1993 OBLGTD.	FY 1994 APPROP.	FY 1994 OBLGTD.	FY 1995 APPROP.	FY 1995 OBLGTD.
Vehicle Safety Standards	$705	$677	$500	$500	$500	$525*
NCAP	2,220	2,196*	1,860	2,098	1,685	1,966*
Theft/Other	90	87	110	110	100	103*
Fuel Economy/Other	-0-	-0-	160	160	420	412
Total	$3,015	$2,960	$2,630	$2,868	$2,705	$3,006

* These funds include obligations of prior year carryover and/or reimbursements collected that year.

Question. Please break down in detail the $289,000 requested for operating expenses and compare to FY 1996 amounts in similar categories (SPS-3).

Answer. The FY 1997 operating expenses requested for the Office of Safety Performance is an allocation of the total NHTSA headquarters operating expenses. These costs include, but are not limited to, personnel related expenses (such as training and permanent change of station), printing, communications, computer support, and payments to the Working Capital Fund. The allocation is calculated based on the total headquarters and mission support authorized full-time permanent positions and the total headquarters operating expenses.

VEHICLE SAFETY STANDARDS -- ROLLOVER

Question. What is the current Agency strategy for rollover prevention and protection?

Answer. The National Highway Traffic Safety Administration plans activities in research, rulemaking and public outreach related to rollover prevention and protection. Various approaches are being considered to reduce the risk of rollover crashes and their resultant injuries and fatalities. The frequency of rollover crashes can be reduced either by modifying vehicles to lessen the likelihood of rollover, or by attempting to modify driver behavior, or both. The risk of injury and death should a rollover crash occur can be reduced by improving the crashworthiness and and vehicles, and by increasing the seat belt use rate. Attention must be paid to all types of vehicles, since consumers demand an ever increasing variety of vehicle types. All types of light trucks are growing in popularity as vehicles for personal transportation. This proliferation of new vehicle types (for example, minivans and compact sport utility vehicles) has come about in response to consumer demand. Rollover crashes are complex events and eliminating all rollovers is impossible. Every type of vehicle can, and does, roll over. A major reduction in rollover fatalities and injuries cannot be attained by concentrating on a single type of vehicle or activity.

Thus, NHTSA has many projects focused on reducing rollover crashes and the resulting casualties. On May 31, 1996 the agency released a report detailing these actions ("Status Report for Rollover Prevention and Injury Mitigation, May 1996"). The following is a list of upcoming and ongoing projects taken from that report:

- The comment period on the Notice of Proposed Rulemaking on vehicle rollover stability labeling was reopened on May 31, 1996, to allow for public comment on the consumer information study done by the National Academy of Sciences, "Shopping for Safety, Providing Consumer Automotive Safety Information". The comment period will close August 5, 1996.
- The agency plans to propose an upgrade to the warning label currently required on utility vehicles under 110 inches in wheelbase to improve the visibility of the label during the summer 1996.
- A working group on anti-lock brake systems (ABS) for light duty vehicles was established under the Motor Vehicle Safety Research Advisory Committee (MVSRAC)in March 1996 and will advise the agency on ABS research.
- The Rollover and Adapted Vehicles Group was formed in the new Office of Crash Avoidance Standards in January 1996 to coordinate agency rollover activities.
- The agency has requested funds for its FY 1997 budget to begin research into development of a dynamic test for rollover and control stability in light duty vehicles.
- Research is continuing in the crashworthiness areas of roof crush improvements (to prevent head injury), improved side window glazing, door latches, and advanced restraint systems (to prevent occupant ejection from the vehicle during a crash).
- The agency has entered into a partnership with automobile insurance companies and automobile manufacturers to promote enforcement of primary belt

use laws in the states. These laws allow police to stop motorists for failure to wear seat belts as a primary offense, not in conjunction with another violation. Seat belt use greatly decreases the risk of being injured or killed in a rollover crash.

Question. What rulemaking actions have been taken during the past year in the rollover related areas: ejection, head impact, door latches, and roof crush improvement? What is the anticipated schedule for future rulemakings in these areas?

Answer. The National Highway Traffic Safety Administration has taken the following rulemaking actions in crashworthiness areas related to rollover in the last year:

- Amended Federal Motor Vehicle Safety Standard 201, "Occupant Protection in Interior Impact," to add padding to upper interior components to protect against head injury in August 1995. While this rule is not focused solely on rollovers, it will eliminate almost 350 rollover-related fatalities per year.
- Published the report, "Ejection Mitigation Using Advance Glazing-A Status Report, " (DOT-HS 80-8358) in November 1995. The advanced glazing activity is aimed at preventing occupant ejection through side windows.
- Held a public meeting on improved side window glazing in February 1996.
- Opened a docket for written public comment on improved side window glazing. The comment period closed March 1996.
- Extended the door latch requirements for side doors to rear doors, to prevent ejection through those doors, in September 1995. This rule may prevent 13 fatalities per year, most of which occur in rollover events.
- Held a public meeting and opened a docket for written public comment on ways in which door latches open during crashes, and the development of test procedures to simulate these in August 1995.

The following rulemaking actions are scheduled in the crashworthiness areas related to rollover crashes:

- Roof crush improvement is in research with a decision point on whether to proceed with additional research or rulemaking due this summer.
- Improved side window glazing is in research with a decision point on whether to proceed with additional research or rulemaking due in Spring of 1998.
- A decision on whether to initiate rulemaking on upgrading the side door latch standard is planned by the end of 1996.

VEHICLE SAFETY STANDARDS-HEAVY VEHICLE BRAKE PERFORMANCE

Question. What is the status of the agency's regulatory activities relative to improving heavy vehicle brake system performance, especially as it relates to antilock braking systems?

Answer. The agency has completed the majority of its work on this issue. A final rule was published on March 10, 1995, requiring antilock brake systems on newly manufactured heavy vehicles (those with a gross vehicle weight rating (GVWR) greater than 10,000 lbs). Several modifications were made to the final rule on December 13, 1995, and again on February 15, 1996, in response to petitions for reconsideration which were filed relative to detailed aspects of the rule. The rule requires that on and after March 1, 1997, all new air brake truck tractors be equipped with antilock braking systems. On and after March 1, 1998, all new air brake trailers and single-unit vehicles must be equipped with these systems. On and after March 1, 1999, all new hydraulic brake single-unit vehicles must be equipped with the systems. The standard contains a performance test requirement for truck tractors that does not now apply to either single-unit trucks or trailers. The agency is conducting research to determine appropriate performance tests for these latter vehicle types.

Additionally, the agency is in the final stages of amending the air brake standards to facilitate and encourage the installation of long-stroke brake chambers on heavy vehicles. These devices will significantly improve the in-service safety performance of these vehicles by making brakes less likely to become out of adjustment, which can lead to being unable to stop within reasonable distances.

VEHICLE SAFETY STANDARDS -- LIGHTING AND VISIBILITY

Question. Relative to signal lighting research, haven't all the signals been developed to their full potential? Why is a stopped vehicle signal of such interest to the Agency?

Answer. We do not believe that signal lamps are currently developed to their full potential. Signal lamp performance was initially codified into Federal rules in 1968 by incorporation of the then existing practices of the states and vehicle industry. While much research had been done by those parties, and much has been done since that codification, changes to signal lighting performance are expensive to implement, and very difficult to justify without evidence of efficacy. To date, the two major advancements in signal lamp safety performance, center high mounted stop lamps and large trailer conspicuity, have been the result of extensive experimental research and field studies. Such extensive testing is needed because identifying the actual causes of crashes and the benefits of possible improvements is very difficult, even with the agency's refined crash data collection systems.

What we have learned from our crash data is that rear end crashes comprise about 25 percent of all motor vehicle crashes and that most struck vehicles in rear end crashes are stopped (about 70 percent) prior to impact. Also, most (about 70 percent) occur in daytime. Driver inattention and inability to judge lead vehicle velocity may be the key factors in causing these crashes. These data suggest that a clear, attention getting signal denoting a stopped vehicle has the potential to assist drivers and prevent this major crash type. Improved rear signals, such as brighter daytime brake lights, unique flashing signals, or increasing lamp area, may help following drivers attend to and react quickly and appropriately to a stopped vehicle ahead. The purpose of research in this area is to determine what such a signal should be and its potential benefits in reducing rear end crashes.

VEHICLE SAFETY STANDARDS -- AIRBAGS

Question. What is the status of the agency's activities with regard to the use of side air bags?

Answer. On October 30, 1990, the agency published a final rule amending FMVSS No. 214 "Side Impact Protection" which specified that all passenger cars meet dynamic side impact protection requirements by September 1, 1997. In compliance with the rule, manufacturers were generally expected to comply via improved side padding and/or reinforced side structures. However, some manufacturers have voluntarily installed side air bags on certain car lines which meet or exceed the side impact requirements. Other passenger car manufacturers have announced plans to offer side air bags. These improved side impact requirements will be mandatory for light trucks and vans for model year 1999.

On August 18, 1995, the agency published a final rule amending FMVSS No. 201 "Occupant Protection in Interior Impact" to require improved head protection. The final rule specifies a five-year phase-in plan (10%, 25%, 40%, 70% and 100%) beginning September 1, 1998. In response to the final rule, four manufacturers indicated that they would voluntarily introduce dynamic head protection systems, such as side air bags, inflatable tube structures, and other crash activated systems, for improved head protection. Since then, the agency has initiated a new rulemaking to accommodate those advanced head protection systems and to ensure that their installation in new cars would not be unnecessarily delayed.

The agency will continue monitoring progress and, as appropriate, promoting the introduction of advanced crash protection systems including side air bags and inflatable tube structures. At present, the agency has no plan to require side air bags or other inflatables as mandatory safety equipment.

Question. What actions has the agency taken to address the air bag induced injuries and fatalities that are occurring? Is there consideration of human factors involved?

Answer. The agency has embarked on a top priority program to address air bag induced injuries and fatalities. The program includes major engineering research as well as programs to provide improved consumer information and upgraded safety belt use laws. The agency has structured all of its efforts in this regard to take maximum advantage of existing knowledge possessed by manufacturers, insurers, and air bag suppliers, together with real life experience from air bag users as reflected in NHTSA's accident data files. To augment this information, a notice was published on November 1995 in the Federal Register asking the public for ideas on how to address this problem. As of June 1996, we had received 61 comments from a broad spectrum of interests: vehicle manufacturers, air bag suppliers, insurers, safety groups, hospitals, and citizens. We hope soon to issue a follow-up notice to announce the agency's proposed actions in light of those comments and the other information we have gathered. Major effort has already been expended to ensure that the help of everyone, including vehicle manufacturers and air bag suppliers, is included in finding a solution.

In addition, a coalition of automakers, insurers and air bag manufacturers has been formed to help correct public misconceptions about proper air bag use. The coalition's major thrust will be public education via a wide media campaign and strengthened seat belt use laws and enforcement.

The Department is working as fast as possible to identify viable technical options which could resolve some of the difficult technical issues associated with passenger air bag aggressivity. Some of these issues involve the role of human factors in assessing the efficacy of the proposed solution. For example, how does the size or color of a warning label influence visual perception and understanding of the importance of the message? Evaluating these options is now in its final stage. A regulatory end product is expected shortly.

The regulatory product will incorporate the latest findings from our accelerated research program dealing with air bag aggressivity and all considerations involving human factors.

Question. What is the overall safety effect of air bags? Does NHTSA expect this trend to continue?

Answer. Air bags provide fatality-reducing protection in potential fatal crashes. NHTSA estimates that drivers protected by air bags experienced a reduced fatality risk of 28-35 percent in purely frontal crashes. Air bags have also been found to reduce the likelihood of injury to an occupant's head, neck, face, chest, and abdomen. Injuries to these body regions are much more likely to be life threatening. These results were reported in NHTSA's second report to Congress on the Effectiveness of Occupant Protection Systems and Their Use (February 1996). Additional analyses are underway to better understand the effectiveness of air bags across the range of crash conditions and occupant sizes.

Question. What is the Agency doing to monitor the adverse effects of air bags?

Answer. The agency has underway a comprehensive program of crash data collection, statistical analysis and engineering tests directed at understanding the real world performance of air bags. Data from all of the major crash data collection programs -- the Fatal Accident Reporting System, the National Accident Sampling System, and the Special Crash Investigation program -- are used to understand not only the overall effectiveness of air bags through statistical analysis but also injury mechanisms as a basis for detailed engineering studies of air bag performance. Much of this work has been summarized in the agency's second report to Congress on the "Effectiveness of Occupant Protection Systems and Their Use" (February 1996). The agency has also been conducting extensive laboratory tests and engineering computer modeling to understand the relationships between crash type, occupant kinematics, and air bag design, in order to better understand air bag performance.

Question. How have the auto manufacturers and air bag suppliers responded to these issues?

Answer. Both auto manufacturers and air bag suppliers have initiated research efforts to explore methods to mitigate the adverse effects of aggressive air bag deployments. In their response to a Federal Register notice published by the agency seeking comments on this matter, manufacturers and suppliers indicated a number of possible approaches which they believe will lead to less aggressive air bag systems. However, there is not unanimous agreement in this group as how best to proceed. Some members state that a less aggressive system could be achieved by down powering the inflator. To provide this down powering, most indicated that the 30 mph unrestrained test requirement of FMVSS No. 208 would need to be changed. Others indicated that a somewhat less aggressive air bag deployment could be achieved by changing the inflation characteristics and the pattern by which the air bag is folded. Manufacturers and suppliers continue to conduct testing and frequently meet with NHTSA to provide the latest results.

Question. What are the near-term actions by the driving public, manufacturers, and/or the Agency that may reduce or eliminate these problems?

Answer. Near-term actions by the driving public: Careful and continued awareness of the safety instructions and warning notices about the proper use of automotive safety equipment including air bags and safety belts. Currently, a label is required on the sun visors of all cars equipped with air bags. The label provides written information warning about unsafe driving practices, such as sitting unnecessarily close to the steering wheel, not placing rear facing infant seats in the front seat, not placing anything against the air bag while driving, etc. Public awareness needs to be heightened to understand that the message conveyed by these warning labels could be a matter of life and death, particularly with respect to small children and infants in rear facing infant seats that are placed in the front seat.

A coalition of automakers, insurers and air bag manufacturers has been formed to help reverse public misconceptions about proper air bag use and to help the consumer understand the warning labels. The coalition's major thrust will be public education via a wide media campaign and strengthened seat belt use laws and enforcement.

NHTSA is opening up lines of informal communication and spend extra effort to include all interested industrial participants in a working coalition that is focused on attaining a common goal, that of immediate, remedial action to the current risk of air bag interaction with the occupant. The agency has already published a request for comments asking participation from air bag suppliers, auto manufacturers and other interested parties to help solve some of the difficult technical issues. Based on discussions with all the major auto manufacturers and air bag suppliers, the approach that appears to yield the greatest benefit should concentrate on the enhancement of known or existing technologies, reserving more advanced concepts such as smart air bag systems for future development.

Question. What are the longer term actions by the driving public, manufacturers, and/or the Agency that may reduce or eliminate these problems?

Answer. The following longer term actions may reduce or eliminate these problems: actions to reduce air bag injuries will focus on improved technology to optimize air bag deployment according to specific crash conditions, accommodating variations in impact direction and severity and in occupant size, position, etc. Manufacturers are now pursuing a variety of "smart bag" research programs. These programs are expected to yield technical developments that could be in production within the next five years. The agency is facilitating this development by performing basic research to complement the industry programs and by examining vehicle safety standards to ensure that they promote and accommodate technical development.

Question. How does the FY 1996 program and the FY 1997 request address the air bag aggressivity issue? Please breakout specific activities and compare the funding amounts.

Answer. During FY 1996, a testing program was initiated at the Vehicle Research and Test Center to evaluate air bag aggressivity with respect to out-of-position children located in the right-front passenger seating position. To date, $450 thousand have been funded toward this effort. In this testing program, production air bag modules, as well as "down powered" modules, are being evaluated. In addition to this testing program, computer modeling was funded and undertaken by staff at the Volpe National Transportation Systems Center and by staff within the Office of

Crashworthiness Research to evaluate both types of modules and their effects on the out-of-position children. The models also are being used to determine the performance of the "down powered" modules for normally seated and out-of-position adult occupants at varying crash severities.

Also in FY 1996, a program has been continued to evaluate the effects of aggressive air bag deployment with respect to upper extremity injuries. One effort involves the development of a procedure which can be used to evaluate the effects of aggressive air bag deployment on arm injuries. To date, $150 thousand have been expended for this effort. Production air bag modules and "down powered" modules are being evaluated using this device.

At the time the FY 1997 budget request was submitted, these types of air bag aggressivity issue activities and expenditures were not anticipated. However, due to the priority of this safety issue, we anticipate that another $850 thousand may be needed to continue the air bag aggressivity research. These efforts include further evaluation of the effect of current and "down powered" and/or redesigned air bag systems on children, small adults, and out-of-position occupants, as well as on arm injuries.

REGULATORY CONSIDERATIONS

Question. What are the key petitions NHTSA is now working on?

Answer: The following are key petitions NHTSA is currently working on:

Std.	Description
108	Rulemaking petition from Steptoe and Johnson (representing Baran Advanced Technologies) requesting permission to use an optional device (Advanced Brake Warning) for brake lamp activation by the rapid release of the accelerator pedal.
118 R	Rulemaking petition from. Michael Moore requesting all vehicles with power windows/roof panels/partitions be equipped with an automatic reversal feature and with switches designed to prevent the inadvertent window closure by children climbing over arm rests and consoles.
201	Reconsideration petitions requesting alternative test procedures for dynamic head protection systems; lead time, phase-in, and carry-back/forward credits; influence of system variables in head form testing; and clarification of the test procedure

206	Reconsideration petitions requesting clarification of the back door definition; provide a two year phase-in; delete the test requirements for auxiliary latches; and delete the secondary latched position requirement for hatch doors and tailgates
209	Rulemaking petition from Association of International Automobile Manufacturers, Inc. AIAM) requesting Section 4.1(b) regarding requirement for lap belt to be designed to always remain on the pelvis, be rescinded as it is redundant with FMVSSs Nos. 208 and 210
213	Rulemaking petition from American Academy of Pediatrics (AAP)requesting the agency begin rulemaking to regulate after market add-on seat belts
223/224	Reconsideration petitions requesting changes to the two new rear impact standards concerning truck underride protection
303/304	Reconsideration petitions requesting modification in the bonfire test requirements for Compressed Natural Gas Vehicles (CNG).

Question. What is the number and nature of the key rulemaking activities that are now before NHTSA?

Answer. Currently, there are approximately 80 active rulemakings. The key rulemaking activities that NHTSA is working on are the efforts of reducing the risks of serious injuries or death to children from deploying air bags, possibly by changing the performance requirements for air bags. Other important regulations NHTSA is looking at include a way to reduce misuse of child seats and compatibility problems between child restraint systems and motor vehicles; ways to reduce deaths and injuries in rollover crashes (including improvements to side windows, door latches, and roofs); and an initiative to simplify and improve consumer information in NHTSA's standards and regulations.

Question. Which of these are among the highest priority for action during FY 1996 and during FY 1997?

Answer. The highest priority for action during FY 1996 and continuing during FY 1997 is to reduce the risk of serious injuries or death to children from deploying air bags, by possibly changing the performance requirements for air bags; and to propose a way to reduce misuse of child seats and compatibility problems between child restraint systems and motor vehicle.

Question. What are the least important activities planned for FY 1997 in the rulemaking program for which NHTSA has requested funds?

Answer. Most of our rulemakings are a result of petitions for changes to standards and regulations to permit new or improved technologies. The analysis required for this process is primarily accomplished by using staff resources. The Office of Safety Performance Standards does not do basic research in support of standards; rather it explores the feasibility and cost of requested changes to standards. Since this office is unable to identify what petitions it will be working on in advance, the request for funds is based on completing work begun in earlier years as well as past experience in the number and type of petitions it routinely receives. In terms of areas for which we requested funds, top priority must be given to our primary mission of improving motor vehicle safety, including the provision of safety information to consumers through NCAP and other means.

Question. Please list all required rulemakings and their current status that are specified in existing law that have not been finalized, and identify those that are under statutory deadlines. What have the Secretary and NHTSA Administrator done to expedite the issuance of these rulemaking?

Answer. There are only two rulemaking actions required by statute which have not yet been made final. Under ISTEA, NHTSA was required to publish an advance notice of proposed rulemaking (ANPRM) by December 31, 1993, on "the need for any additional brake performance standards for passenger cars, including antilock brake standards." The agency issued the required ANPRM on December 29, 1993. The statute also requires us to complete the rulemaking within 36 months of initiation. Completion may be by issuing a final rule or a decision not to issue a final rule (which may include "deferral" of the action). We plan on issuing a deferral notice in June 1996, thus completing our ISTEA requirements. All other mandated ISTEA actions have been completed. We are also required to issue light truck fuel economy standards for each model year at least 18 months prior to the beginning of the model year. Standards have been issued through model year 1998. The model year 1999 standard must be issued by the end of March 1997. We expect to meet this date. Since there are not any late statutory rulemakings, expedited actions have not been necessary.

Question. Please discuss the workload versus resources of the Safety Performance Standards Office. Please specify FTE and FTP and the number of on-board staff for each of the last three fiscal years.

Answer. For the past three years, this organization was responsible for the completion of an average of 106 rulemaking actions with an average of 67 FTE and 69 FTP. The attached charts will show the workload for the past several calendar years (the information requested is not available on a fiscal year basis). Through our streamlining efforts, we have been able to operate fairly efficiently because of our commitment to improving processing times, which is one of our goals under the Government Performance and Results Act (GPRA). However, considering this high level of rulemakings, versus the amount of resources available, a decrease in resouces, would effect our ability to maintian this pace. If this occurs, the agency would experience delays in processing times and difficulty in meeting this GPRA goal. It should also be noted that it is impossible to predict the number of forthcoming petitions and rulemakings the agency will be required to handle.

The following table gives infformation on Safety Performance Standards for the last three year:

	FY 1993	FY 1994	FY 1995
FTE	67.2	66.6	67.47
FTP	69	69	69

Question. The provisions of the ISTEA allow NHTSA to delay the implementation of certain safety rulemakings by publishing an explanation for the public as to why action has been delayed. ISTEA also, in some cases, requires NHTSA to initiate a proposed rulemaking for certain safety improvements, but does not mandate implementing a final regulation. At this point, are there any safety rules mandated in ISTEA for which NHTSA expects to request a delay, or anticipates that it will not implement a final rule?

Answer. ISTEA contained mandates for NHTSA to issue two rules (mandate air bags and improve head impact protection) and to address rulemaking in six other areas(seat belt fit, child booster seats, light truck side impact protection, heavy duty vehicle ABS, passenger car ABS, and rollover prevention). Completion of the last six items did not mean that a rule had to be issued; NHTSA could terminate or defer action on those items. The agency has issued the two required rules and also issued new rules in four of the other six areas. NHTSA terminated rulemaking on rollover prevention in June 1994, and in June 1996 denied petitions to reopen the rulemaking. The agency also expects that in June 1996, it will publish a notice deferring action on ABS for passenger cars due to the mixed statistical results on the benefits of the device.

Question. What does NHTSA consider to be the most important rulemakings that it has outstanding or yet to initiate? Please provide the basis, such as expected number of lives saved, etc., for the ranking.

Answer. By far, the most important rulemaking in progress is our effort to prevent airbag related injuries and fatalities, especially to children. We expect to reach a rulemaking decision on this subject in the summer of 1996. The basis for considering this a priority is protection of children. Another key rulemaking affecting child safety is our consideration of means to improve the compatibility of child seats with vehicle seats. We expect to reach a regulatory decision this summer and the basis for this being a priority is also protection of children.

Another current rulemaking priority--due to the number of casualties (1500 deaths annually)--is our effort to improve fuel system integrity, particularity for rear-end crashes. Rulemaking decisions should be made by the end of 1996.

Finally, our rollover-related activities, for which we recently published an updated status report, merit priority status. Rollovers account for about 25 percent of all light-duty vehicle fatalities. In early June, NHTSA published an updated status report of its many rollover-related activities. We announced that we expect to reach regulatory decisions in 1996 on a rollover stability window label, on an improved dashboard warning for utility vehicles, and on regulations for improved roof crush resistance, and improved door latches to prevent ejection. Within the next 18 months, we also expect to make a regulatory decision on glass/plastic side window glazing to reduce ejections, which may save 1,000 lives per year.

Question. Please prepare for the record a list of all final rulemakings that have been issued since a similar list submitted last year.

Answer. This is a list of all final rulemakings that were issued from June 1995 through May 1996.

1995

Std.	Description
105/121	response to petitions for reconsideration of a final rule to require antilock brake system (ABS) on medium and heavy vehicles and stopping distance requirements for these vehicles
106	response to a petition for rulemaking, which specifies new referee material for testing of brake hoses/fluids
108	response to petition for rulemaking, updating weathering and heating testing requirements of plastic optical parts
	response to petition for rulemaking; permits replaceable lenses on integral beam and replaceable bulb headlamps that incorporate on-board headlamp aimers, provided that such headlamps meet more rigorous environmental tests

	transfers all dimensional and specification information on HB type replaceable light sources for headlamps from the Standard to newly established Docket No. 93-11
114	response to petition for rulemaking; makes temporary change in the requirement that vehicles with automatic transmissions be equipped with a transmission lock that prevents key removal unless the transmission is locked in park or becomes locked in park as a direct result of removing the key
121	response to petition for rulemaking, adds a definition of air-over-hydraulic brake subsystems
	response to petition for rulemaking, amends the control line pressure differential requirements for converter dollies and trailers designed to tow other air braked vehicles
135	response to petitions for reconsideration of final rule on passenger car brake harmonization by making several minor changes to the test conditions and a number of corrections
201	extends head injury protection requirements to provide protection when an occupant's head strikes upper interior components, including pillars, side rails, headers, and the roof, during a crash and amends the procedures and performance requirements for a new in-vehicle component test
206	extends door latch requirements to include hatchbacks, station wagons, sport utility vehicles, and passenger vans, with a gross vehicle weight rating (GVWR) of 4,536 (kilograms (KG0 (10,000 pounds) or less
213	adds a greater array of sizes and weights of test dummies to be used in child safety seat compliance tests
	responds to petitions for reconsideration, delays the date on which manufacturers of add-on (portable) child restraints systems must comply to the above final rule
214	extends dynamic testing requirements to light trucks, multipurpose passenger vehicles and buses with gross vehicle weight rating (GVWR) of 6,000 pounds or less
	Deletes several obsolete sections of the phase-in of dynamic side impact protection

	requirements (this is part of the President's Regulatory Reinvention Initiative)
303/304	allows any appropriate fuel to be used for the bonfire test for compressed natural gas (CNG) containers and adds new labeling requirements for CNG vehicles and containers
304	response to petitions for reconsideration, specifies burst test safety factors for use in evaluating the strength of carbon fiber containers for compressed natural gas (CNG) fuel containers

1996 Std.	Description
105/121	response to petitions for reconsideration, requires continuous power for trailer antilock brake system (ABS) in place of the dedicated power and separate ground previously required; delays the implementation date for the in-cab trailer malfunction indicator by four years; and extends the period in which exterior ABS failure indicators are required on trailers
	Deletes an obsolete section that relates to an optional burnish procedure because the ime period to which it specifies is in the past (this is part of the President's Regulatory Reinvention Initiative)
106	updates several addresses and dates in the standard to which a person should write when filing a designation that it is a manufacturer of a brake hose or brake hose assembly (this is part of the President's Regulatory Reinvention Initiative)
107	rescinds the reflectivity of specified metallic components located in front of the driver (this is part of the President's Regulatory Reinvention Initiative)
108	allows high intensity discharge (HID) light sources to be used in replaceable bulb headlamp systems, in addition to their presently allowed use in integral beam headlamp systems
121	response to petition for rulemaking to require the automatic activation of the air compressor on a powered vehicle whenever the pressure in the air brake system drops below 100 pounds per square inch (psi)

	removes obsolete provisions, updates, and reorganizes the standard (this part of the President's Regulatory Reinvention Initiative)
202	clarifies the test procedures by replacing the phrase "rearmost portion of the head form" with a reference to the portion of the head form in contact with the head restraint (this is part of the President's Regulatory Reinvention Initiative)
209	rescinds the colorfastness requirements for seat belt assemblies (this is part of the President's Regulatory Reinvention Initiative)
210	deletes two owner's manual requirements that require manufacturers to include a diagram in their owner's manuals showing the location of any shoulder belt anchorages required by the standard, if the vehicle is not equipped with shoulder belts at those locations and requires the inclusion of owner's manual information concerning the use and the installation of child safety seats in vehicles equipped with an automatic belt at the right front outboard seating position, if the belt cannot be used to secure a child seat (this is part of the President's Regulatory Reinvention Initiative)
211	rescinds the wheel nuts, wheel discs, and hub caps requirements (this is part of the President's Regulatory Reinvention Initiative)
213	corrects an oversight and announces the date on which it became permissible for manufacturers to begin voluntarily producing child restraint systems that comply with the final rule adding an array of dummies to the compliance testing
301	deletes several obsolete sections of the standard as they relate to the general requirements for light vehicles; school buses; and fuel spillage because the time periods to which they specify are all in the past (this is part of the President's Regulatory Reinvention Initiative)
304	response to petition for rulemaking to have the standard be consistent with the most recent voluntary standard issued by the aluminum industry
533	establishes the average fuel economy standard for light trucks manufactured in model year (MY) 1998

delays effective date of the final rule for model year (MY) 1998

538 establishes minimum driving range standards for dual energy and natural gas dual energy passenger automobiles on non-petroleum fuel and established gallons equivalent measurements for certain gaseous fuels

541 final data on thefts of model year (MY) 1993 passenger motor vehicles that occurred in calendar year (CY) 1993

final listing of model year (MY) 1997 high-theft vehicle lines

NEW CAR ASSESSMENT PROGRAM

Question. NHTSA reported last year on the response of the car-buying public to the new NCAP format. Has this positive response continued? Does NHTSA have any additional current information to add to that report?

Answer. As stated last year, the promotional activities and simplified star format have resulted in a significant increase in requests for and use of NCAP information. The star format has made the NCAP information easier to understand for most consumers and has led to the direct use of the star rating by automobile manufacturers in advertising the safety performance of their vehicles. The Ford Motor Company and Audi have used five star results in major print and TV ad campaigns.

The agency's Auto Safety Hotline has continued to document an increase in overall consumer requests for NCAP information between 1994 and 1995, with the FAX requests for 1995 increasing from approximately 3,000 in 1994 to almost 12,000 in 1995. With NCAP data made available on the internet, the agency is seeing more consumers turn to this electronic media as a simpler way for assessing the NCAP information. For the first week in June 1996, more than 64,000 consumers accessed the NHTSA Web site. The agency is continuing to upgrade the NCAP data on the internet to make it more informative and user friendly. In 1995, 225,000 an NCAP brochure "Buying a Safer Car" was produced in partnership with the American Automobile Association (AAA). All copies of this brochure were distributed through AAA's motor clubs and the governments Consumer Information Center. In 1996, AAA and the agency have published 230,000 copies of the brochure for distribution to consumers.

Question. NHTSA has requested funds to expand NCAP into side and frontal offset crash testing. Please explain why these tests need to be conducted at this time. In addition, please discuss whether testing passenger vehicles at one time and light trucks/vans at another may present issues of inequitable treatment of respective manufacturers, as well as pose competitive problems when such partial data is released to the public.

Answer. In a 1995 report to Congress on the NCAP program, the GAO recommended that NHTSA "explore the feasibility of alternate means of testing the crashworthiness of new vehicles" and suggested "extending testing programs to include side, rear, and frontal-offset impacts to gain a better understanding of the total safety of a vehicle." In February 1996, NHTSA completed a "1995 Customer Satisfaction Survey" to obtain information about the kind and quality of services the public wants from the Federal government related to traffic safety and their level of satisfaction with existing services. The survey is statistically representative of the public's attitudes, opinions, and behavior. In this survey, 82 percent of the respondents felt that the government should conduct crash testing of motor vehicles to determine how well they protect passengers in a crash. The requested funds will allow the agency to be responsive to consumers and the recommendations for side impact safety and to explore the expansion into the offset frontal test that is being conducted on an international basis.

For side impact, all model year 1997 passenger cars must meet the new dynamic requirements of Federal Motor Vehicle Safety Standard (FMVSS) 214. In model year 1999, all light trucks, vans, and sport utility vehicles (LTVs) must meet these requirements. In FY 1992 and 1993, Congress funded the steps necessary to establish the methods for expansion into side impact NCAP based on the FMVSS 214 test procedures. This included the crash testing of 11 different models to determine a reasonable crash severity level, to assure that testing, instrumentation, and test device performance are consistent, and to assure that the initiation of a side-impact NCAP will not degrade safety by unduly stiffening the vehicle. Results from these activities established the feasibility of a side-impact NCAP. The most popular passenger cars would be tested in model years 1997 and 1998 with LTVs added in model year 1999. This is similar to the approach that was used in the present frontal NCAP. Passenger cars were tested in the initial years with LTVs added later. The agency consistently informs consumers to only compare test results within a given vehicle class and weight class. Thus, comparisons are never made between cars and light trucks. With limited resources, all makes and models have never been tested in the present NCAP. This approach has not created any issues of inequitable treatment of respective manufacturers and has not posed any competitive problems. If a manufacturer feels that such a problem may occur, it may request that the particular model be tested in the optional NCAP (this program allows manufacturers to designate and fund testing of specific vehicles at a NHTSA designated laboratory.) With the expansion of NCAP into side impact, consumers would be provided with the relative crashworthiness of passenger vehicles in the two most common injury-causing crash events (frontal and side impacts), which together account for more than 75 percent of passenger car occupant serious injuries and deaths.

For frontal offset testing, Australian NCAP, the Insurance Institute for Highway Safety IIHS), and the European community have all been testing new vehicles at 40 mph into a barrier with a deformable face and a 40% overlap of the vehicle. These programs have established test procedures and methods for assessing safety parameters in offset frontal tests. As shown by IIHS, these tests are most important for determining the protection provided to the lower legs of occupants in high speed frontal crashes. In calls to the agency, consumers have consistently requested data on side impact protection and have recently begun to ask for the results of the offset tests along with the NCAP results for the traditional full frontal tests at 35 mph into a rigid barrier. Offset test results would provide consumers with more complete information on the safety performance of vehicles in real world severe crashes. The agency would work with manufacturers, IIHS, and the international community in establishing the specific test protocol and injury measurements for this program.

Question. What activities has NHTSA used to promote NCAP and how successful have they been? What funding sources have been used?

Answer. In March, 1996, NHTSA released the second "Buying a Safer Car" brochure which provided comparative safety information on model year 1996 vehicles for new car buyers. The brochure, developed in cooperation with the American Automobile Association (AAA) and the Federal Trade Commission, featured NCAP scores.

A total of 230,000 copies will be distributed by AAA, NHTSA, and the FTC. AAA will distribute its copies through its auto clubs. NHTSA will distribute 70,000 copies through auto dealers, the Auto Safety Hotline, regional offices, and other channels. FTC will distribute 10,000 copies. Through an interagency agreement with the Consumer Information Center (CIC), NHTSA will distribute an additional 50,000 copies free of charge to consumers who request them through CIC's quarterly catalog.

The first "Buying a Safer Car" brochure appeared in January 1995. About 225,000 brochures were distributed through AAA, NHTSA (including CIC) and FTC channels.

(COST: The printing of the 1996 brochure cost NHTSA $28,924. Distribution through CIC for 1996 cost NHTSA $23,500)

As part of its NCAP promotion program, NHTSA also is producing two video news releases on NCAP. The first will be released to television stations during the last week of June, and will provide footage of the final NCAP results for model year 1996 vehicles, along with an overview of the NCAP program and its usefulness to new car buyers. The second VNR will be released in September and will highlight the top NCAP performers for the year.

(COST: $24,000)

In 1995, NCAP information first appeared on the Internet as part of NHTSA's home page. NCAP results were included on the site in the form of press releases. NCAP information has been very popular on the home page. More than 1700 people a day access current NCAP information.

In May, 1996, NHTSA began work on improving and expanding NCAP information available on the Internet. NHTSA will create an NCAP web page that would be part of NHTSA's home page but which can also be accessed directly. The web page will features photos and films of new and crashed vehicles and will provide the comparative safety information found in the current "Buying a Safer Car" brochure.

(COST $8650.00)

In 1995, NHTSA established a permanent NCAP exhibit at the Petersen Automotive Museum in Los Angeles, CA. The NCAP exhibit has been on display since that time, and provides a link to the Auto Safety Hotline, so that consumers can directly request NCAP results over the phone. A duplicate NCAP exhibit has also been used by NHTSA staff to promote NCAP at trade shows and conferences. The NCAP exhibit was brought to Melbourne, Australia in June, 1996 for the 15th Annual International Conference on the Enhanced Safety of Vehicles.

(COST of Exhibit: $15,937.24)

An NCAP print media campaign, initiated in FY 1994, was concluded in April, 1996. The campaign, conducted in two separate phases and including a separate Hispanic phase, placed crash test public service announcements (PSAs) in newspapers, magazines, trade publications, and Hispanic print media outlets. The campaign received donated media space with an advertising value of $207,518, which reached an estimated 10 million readers.

(COST of Campaign: $108,654

Overall, NHTSA's promotional activities on NCAP have been very successful, as shown by the increased number of requests for NCAP information to the Auto Safety Hotline in 1996.

NCAP promotional activities have been funded from new appropriations and carryover funds.

Question. What efforts does NHTSA have underway to improve the usefulness of the consumer information on vehicle and equipment safety that is provided to the American public?

Answer. NHTSA has initiated a major new effort to bring as high a level of science to the agency's consumer information activities as it has brought to its other regulatory activities. In the past, NHTSA's label and owner's manual requirements were generally designed with minimal feedback from the public and were done in a piecemeal fashion. NHTSA now will take a comprehensive look at this area to enhance the usefulness of the consumer information provided on vehicle and equipment safety.

One way to do this is to use focus groups to get the public involved in deciding how best to design materials that will communicate safety information effectively to the American public. For example, one vehicle manufacturer (Saab) now provides a "safety card," similar to the safety cards in the pouch of airline seats, as a supplement to its owner's manual. NHTSA would like to investigate this concept by using focus groups to ask the public if this is an effective way to communicate important safety information.

NHTSA is also reviewing all of its standards to compare all the differing requirements for label size, legibility, etc. NHTSA will propose a new regulation that will eliminate current differences and consolidate labeling requirements into a single location.

NHTSA's "Buying A Safer Car" brochure has been very popular with the American public. This lists crash test results, along with theft information and the availability of safety equipment on most models sold in a model year. All 225,000 copies were distributed for the 1995 model year and 400,000 copies are available for the 1996 model year. NHTSA is working to make this available over the Internet. To help people considering the purchase of a used car, as much information as is available on vehicles beginning with the 1989 model year will also be provided on Internet.

Heavy truck operators currently have no means of knowing the braking torque levels of replacement linings they buy. Differences in brake torque levels can lead to braking imbalance, instabilities or loss of control. NHTSA is initiating a program to provide consumer advisory information to heavy truck operators concerning after market brake linings. Currently available after market linings will be tested and the results published with appropriate information on how to match original equipment linings with replacement linings having equivalent performance.

Question. NHTSA is again proposing addition of a side impact test to the NCAP. The Congressionally-mandated National Research Council study, "Shopping for Safety -- Providing Consumer Automotive Safety Information", states that "much work remains to be done to determine the most effective ways of preventing injury in side impact crashes." As a result, the study concluded that "it is probably premature to provide consumers with information on the relative merits of side-impact safety features in current-model vehicles."

In view of these findings, why does NHTSA propose to extend NCAP? Are there real-world evaluations of the dynamic side impact standard which justify the higher test speed of the proposed side impact NCAP test?

Answer. The agency disagrees with the statements in the National Research Council's study relative to side impact. The side-impact NCAP tests are based on the technical requirements of Federal Motor Vehicle Safety Standard (FMVSS) No. 214 which have been exposed to the complete regulatory process. The development of these requirements involved extensive research to determine the most effective ways of preventing injury in side impact crashes. Real world crash studies along with the injury performance measures were used in analyses which established the significant benefits of injury and fatality reduction associated with FMVSS No. 214.

The necessary steps to proceed to a side impact NCAP were funded by Congress in FY 1992 and 1993. The NCAP tests would be conducted at a slightly higher crash speed (38 mph instead of the 33 mph requirements of FMVSS No. 214). From studies of real world crash data, this higher speed has been shown to cover more of the injury causing events than FMVSS No. 214. Examination of the test results from passenger cars tested in FMVSS No. 214 in 1994 through 1996 indicates that this higher test speed is necessary to provide consumers with clear relative differences that may exist in side protection. In the FMVSS No. 214 compliance test results, all injury measures are very low and would not distinguish safety differences between different vehicles which may become apparent at higher speeds.

A side impact NCAP has the potential for improving occupant protection significantly above that required in FMVSS No. 214 if the vehicle manufacturers which have been responsive to the frontal NCAP test results are equally responsive to such a program in side-impact testing.

Question. How do NHTSA's plans for a side impact NCAP test coexist with the desire to advance international harmonization of standards in order to make U.S. vehicle manufacturers more competitive in world markets? Won't a higher speed side impact NCAP test exacerbate the differences between the U.S. and European side impact regulations? What is NHTSA's view on harmonizing the side impact standards before adding the higher speed NCAP test?

Answer. Presently, the U. S. dynamic side impact requirements reflect the only standard which is in effect. The European Community (E.C.) has yet to formally legislate any requirement. Even if the EC passes such legislation, it will be several years before manufacturers are required to comply with any standard in Europe. During that period, the agency will work closely with the EC, Australia, Japan, and others to establish a harmonized or functional equivalent approach to many of the safety standards without compromising the levels of safety which are now required for vehicles in the U. S. However, for consumer information testing, which places no mandatory requirement on the manufacturers, it is important that test methods and procedures which have an established record of consistency and evaluation be utilized. Essentially, only those methods for the U. S. dynamic side impact testing have had this review. This NCAP test, which is not a standard, will not exacerbate the differences between standards which could be enacted in other countries.

Question. What is the status of NHTSA's efforts to promote international harmonization? Are there additional resources which NHTSA needs in fiscal year 1997 to undertake these activities?

Answer. NHTSA's efforts to promote international harmonization have been conducted through the Working Party on the Construction of Vehicles (WP29) of the Economic Commission for Europe of the United Nations (UN/ECE); the Automotive Standards Council of the North American Free Trade Agreement (NAFTA) and the Asia Pacific Economic Cooperation (APEC). The agency has also promoted international harmonization on a bilateral basis with several countries including the Russian Federation, the Newly Independent States of the former Soviet Union and South Korea. The agency has provided, as requested, several in-depth briefings on the U.S. motor vehicle safety regulatory system and the Federal Motor Vehicle Safety Standards (FMVSS) to visiting foreign government officials.

In APEC, the agency, in cooperation with the eighteen APEC economies, has been substantively involved in the Road Harmonization Project of the Transportation Working Group. This project has identified some fifty motor vehicle regulations that are applied throughout the region for identification of differences and commonalities with a view to encouraging the harmonization of these regulations. Within NAFTA, the agency has published a notice (61FR28636, June 5, 1996) announcing agreement on terms of reference for working groups which will involve the industry in the task of facilitating compatibility among national standards-related measures that apply to automotive goods. At WP29, the agency and the Environmental Protection Agency (EPA), having been granted co-negotiating authority by the Department of State, have been working on a draft revision of an Agreement, administered by WP29, on the development of ECE voluntary motor vehicle regulations. The draft revision is aimed at transforming WP29 into a world forum for the development of global regulations to be adopted voluntarily by participating countries; and to provide for full consideration of the FMVSS and US emission standards in the development of such global regulations.

Additionally, the globalization of the automotive industry has heightened the interest of that industry in the harmonization of motor vehicle regulations. Industry executives from both sides of the Atlantic met at the

Transatlantic Business Dialogue in Seville, Spain, last November. Recommendations concerning standards, regulations and regulatory policy were made to governments and were considered at the European Union(EU)-United States(US) Summit in Madrid in December. Some of these recommendations were incorporated generically in the New Transatlantic Agenda issuing from the Summit. Included was a commitment to cooperatively developing and implementing regulations on vehicle safety requirements and on measures to reduce air and noise emissions; and to build on existing efforts aimed at facilitating international regulatory harmonization. Following on the heels of those meetings, a Transatlantic Automotive Industry Conference on International Regulatory Harmonization was held in Washington in April of this year. The recommendations to governments concerned existing and future regulations. They called for cooperation on pre-regulatory research as a means of achieving harmonized future regulations based on the same science; and, proposed that serious consideration be given to determining the functional equivalence among corresponding U.S. and EU/ECE existing regulations.

The agency and representatives of the EU and eight countries reached agreement on a globally harmonized research agenda at the 15th International Technical Conference on the Enhanced Safety of Vehicles (ESV) this May. The agenda, currently being fleshed out, sets forth six broad areas of work over the next five years. Existing international meetings are to be used for reporting progress. This initiative, begun in early 1995 by the agency, speaks directly to the recommendation for cooperative pre-regulatory research. Also, plans are being made to increase bilateral sharing of regulatory agendas and increased cooperation in the development of regulations and regulatory policy. The work associated with defining functional equivalence of regulations and the technical evaluation of the safety benefits involved, is the type of project that generally entails intensive use of staff resources and involves periodic bilateral meetings with EU counterparts. We believe NHTSA requires an add-on of $60, 000 (not able to be anticipated during budget development) for international travel related to the coordination of agreed upon research projects and to support work on the harmonization aspects of existing regulations.

Finally, the Harmonization Office is currently staffed by a Director and a secretary, supported by technical and legal staff, when available. The addition of two technical personnel and one attorney would provide the resources necessary to operate the office efficiently and provide the service required.

Question. NHTSA is proposing that another new test be added to NCAP -- an offset frontal test -- for the 1997 model year. However, the budget justifications show that NHTSA's plans for this test are undefined, as you have yet to establish an offset crash test mode and "appropriate conditions" for the test. If there is a need for an offset frontal test, shouldn't NHTSA conduct a research program to identify the appropriate test, and if it is supported by the research, then use the regular rulemaking process to consider whether a new standard is needed.

Answer. NHTSA has carefully reviewed the testing methods and procedures which are being advocated internationally and which the Insurance Institute for Highway Safety (IIHS) has used in conducting 22 tests of popular U. S. vehicles. Australia, Europe, and IIHS have now evaluated these test conditions relative to their feasibility and in relationship to real world crashes. These evaluations were documented and presented at the recent (May 1996) Enhanced Vehicle Safety (ESV) Conference. The IIHS data show significant vehicle intrusion levels and a greater potential for lower leg injuries than the present NCAP tests. Although lower leg injuries are seldom life threatening, they can be very costly and disabling. The agency believes that the IIHS offset test is an appropriate test, along with the present full frontal crash test, to provide consumers with a complete picture of the relative safety of today's vehicles in severe frontal crashes. The extensive international research has established this test as a valid NCAP test for consumer information.

Data gathered from an NCAP offset test would be used to supplement ongoing agency research to determine the need for and requirements of any new standard. The agency would work with manufacturers, IIHS, and the international community in establishing the specific test protocol and injury measurements for this program.

Question. How does NHTSA justify the proposed testing of 1997 vehicles, when manufacturers do not know the details of the tests?

Answer. The agency has carefully reviewed the offset frontal testing methods and procedures which are being advocated internationally and which are being used by the Insurance Institute for Highway Safety. The automobile industry is very familiar with the details of these test conditions and has been responding to IIHS and the international community. As the leader in providing important crashworthiness information to consumers, the agency would investigate the use of this offset test to provide consumers with a complete picture of the relative safety of today's vehicles in severe frontal crashes. We would coordinate the development of the test protocol and injury measures with the industry, consumers, and other governments.

Question. What does NHTSA believe were the conclusions and recommendations of the National Academy of Sciences' study on consumer information regarding automotive safety that was released March 26, 1996? How are these reflected in the budget?

Answer. NHTSA is still reviewing the NAS's study to ensure that the agency considers and responds to each of the specific conclusions and recommendations. We can respond with a general summary of the conclusions and recommendations of the study.

In the near term, the NAS recommended that consumers be given more comparative information and that the presentation and dissemination of existing vehicle safety information be enhanced. The NAS also recommended that NHTSA look again at the variability associated with full frontal crash tests.

To implement these recommendations, the NAS recommended that NHTSA conduct research to understand better how consumers use safety information in selecting vehicles and how automotive safety information can best be communicated and disseminated to consumers.

For the longer term, the NAS recommended that NHTSA develop a single overall rating to reflect a vehicle's crashworthiness and a checklist of the most significant crash avoidance features. This information would be labeled on all new vehicles and explained in brochures accompanying the vehicle. To achieve this single "safety score," the National Academy recommended establishment of a Federal advisory committee or a public-private institute, with annual funding of $10 to $20 million, or more.

NHTSA's budget was submitted to Congress before the NAS's report was available. Generally, however, NHTSA believes its budget is consistent with the NAS's recommendations for the near term. That is, the agency has asked for funds to enhance the effectiveness of existing consumer information and to give consumers more safety information. NHTSA's budget request does not ask for any funds to implement the longer-term recommendations.

Question. NHTSA is requesting a $1,835,000 increase in the NCAP program above the $1,707,000 level of funding in FY 1996. Please break down in extensive detail the expected use of the entire funding request for NCAP and compare to FY 1996 expenditures (SPS-8).

Answer. The following table contains the information.

Detailed Breakout of FY 1996 NCAP & Proposed FY 1997 NCAP

PROJECT DESCRIPTION		BUDGET AMOUNT	
		FY 1996	FY 1997
Frontal Impact	Vehicle Purchase	$ 761,000	$ 728,000
	Vehicle Testing	$ 669,000	$ 785,000
	Dummy Calibrations	$ 25,000	$ 25,000
	Dummy Refurbishing	$ 47,000	$ 48,000
	Video Production	$ 25,000	$ 25,000
	Administrative Cost	$ 80,000*	$ 84,000*
	TOTAL	$1,607,000	$1,695,000
Side Impact	Vehicle Purchase		$ 447,000
	Vehicle Testing		$ 325,000
	Dummy Calibrations		$ 18,000
	Dummy Refurbishing		$ 25,000
	Administrative Cost		$ 35,000*
	TOTAL		$ 850,000
Frontal Offset	Vehicle Purchase		$ 343,000
	Vehicle Testing		$ 365,000
	Dummy Calibrations		$ 10,000
	Dummy Refurbishing		$ 17,000
	Administrative Cost		$ 15,000*
	TOTAL		$ 750,000
NCAP Promotional Program		$ 100,000	$ 247,000
Total FY 1997 NCAP Costs		$1,707,000	$3,542,000

* Administrative costs include computer support, hot copy, printing, and distribution costs.

FUEL ECONOMY PROGRAM

Question. What are the implications of not funding the $1.5 million requested to conduct an Environmental Impact Study (EIS) related to CAFE?

Answer. The National Environmental Policy Act requires Federal agencies to prepare an EIS prior to taking a major action significantly affecting the human environment. Agencies must consider cumulative impacts on the environment, taking into account past actions, and may not segment an action in order to avoid the need for an EIS. Thus, small changes in fuel economy standards for passenger cars or light trucks each year may still subject the rulemakings to court challenge. If mandated future light truck fuel economy rulemaking shows the feasibility of setting standards that significantly affect the environment, then the agency would be required to prepare an EIS. In that event, and without funding for the EIS, the agency would be unable to complete the required rulemaking on fuel economy standards. In regard to preparing the EIS in-house, the agency has one program analyst familiar with the process and requirements for environmental assessments and EISs, and this is insufficient for an effort of this magnitude. Moreover, we lack capability in areas involving modeling of environmental impacts (e.g.,) greenhouse gas and acid rain effects, changes in raw material production, vehicles switching by consumers).

Question. What is the Administration's policy on changing the CAFE standards for passenger cars? For light trucks and vans? What is the status of NHTSA's rulemaking activity with respect to changing CAFE standards for light trucks and vans?

Answer. The statute fixes the passenger car CAFE standard at 27.5 miles per gallon (mpg)unless the Administration sees a need to change it under the statutory considerations. The last change was for model year 1989 when the standard was lowered to 26.5 mpg before returning to 27.5 mpg for model year 1990 and thereafter. On the other hand, the statute does not provide a basic standard for light trucks, but directs the Department to establish a standard for each model year. The agency issued a fuel economy standard for light trucks for model year (MY) 1998 of 20.7 mpg as required by the DOT Appropriations Act for Fiscal Year 1996. The standard for model year 1999 must be issued by March 31, 1997. To meet that date, the agency will issue a notice of proposed rulemaking before the end of this calendar year.

THEFT

Question. The amount of money requested for the theft program has decreased from last year. What changes have been made regarding NHTSA'S activities in this area (SPS-14)?

Answer. The agency has asked for repeal of the requirements for collection and analysis of insurance information relating to the effectiveness of the parts-marking standards. This information has not proven useful in assessing the program. Therefore, in order to satisfy the Theft Prevention law requirements, if this repeal is granted, a reduced funding level of $50 thousand is requested for this program. Activities include the analysis of FBI theft and recovery data on stolen vehicles from over 26,000 law enforcement jurisdictions to calculate the theft rates of motor vehicles.

SAFETY ASSURANCE PROGRAM

Question. Please prepare a table indicating the amount actually appropriated and the amount spent for the different major categories and subcomponents of the Safety Assurance budget for each of the last three years. Please explain any deviations or reallocations of funds.

Answer. There were no deviations or reallocations of funds in the different major categories and subcomponents of the Safety Assurance budget. The information is provided in the following table.

Vehicle Safety Compliance

FY 1993 Appro.	FY 1993 Spent	FY 1994 Appro.	FY 1994 Spent	FY 1995 Appro.	FY 1995 Spent
$5,311*	$5,260*	5,929*	$5,888*	$5,687*	5,524*

Defects Investigation

FY 1993 Appro.	FY 1993 Spent	FY 1994 Appro.	FY 1994 Spent	FY 1995 Appro.	FY 1995 Spent
$1,931	$1,923	$2,489*	$2,478*	$3,048*	$3,046*

Auto Safety Hotline

FY 1993 Appro.	FY 1993 Spent	FY 1994 Appro.	FY 1994 Spent	FY 1995 Appro.	FY 1995 Spent
$232	$232	$557	$557	$557	$557

Odometer

FY 1993 Appro.	FY 1993 Spent	FY 1994 Appro.	FY 1994 Spent	FY 1995 Appro.	FY 1995 Spent
$100	$97	$0	$0	$0	$0

* Amounts include recovered and carry-over funds.

Question. Please break down in detail the intended uses for the $1,812,000 requested under operating expenses on page SA-3 and compare this by intended use to the amount allocated in FY 1996.

Answer. The FY 1997 operating expenses requested for the Office of Safety Assurance is an allocation of the total NHTSA headquarters operating expenses. These costs include, but are not limited to, personnel related expenses (such as training and permanent change of station), printing, communications, computer support, and payments to the Working Capital Fund. The allocation is calculated based on the total headquarters and mission support authorized full-time permanent positions and the total headquarters operating expenses. .

Prior to the FY 1997 request, NHTSA calculated operating expenses for the Office of Safety Assurance using the same methodology. However, the communications costs for the Hotline and the operating costs for San Angelo were added to the total headquarters operating expenses calculation for Safety Assurance. In an effort to more accurately reflect the total costs of these programs, the FY 1997 Hotline communication costs and the San Angelo operating expenses are reflected in the respective program budgets.

VEHICLE SAFETY COMPLIANCE

Question. Please break down in detail the $6,033,000 requested for Vehicle Safety Compliance. Please compare this to the amount received in FY 1996 (SA-5).

Answer. The proposed budget of $6,033,000 for the agency's compliance test program provides $5,480,000 for vehicle and equipment testing, $186,000 for testing compressed natural gas vehicles and fuel tanks (new technology for safety compliance testing in FY 1997), and $367,000 for operating the agency's tire test facility in San Angelo, Texas (funded from another part of the agency's budget in prior years and merged with the agency's compliance test program in FY 1997). The $5,480,000 portion of the FY 1997 request reflects the core of the agency's Vehicle Safety Compliance Program which is directly related to the $5,353,000 request in FY 1996 (which became $4,775,600 as a result of Congressional budget reductions), and the actual allocations of $5,231,000 in FY 1995, and $5,500,000 in FY 1994.

The $5,480,000 for vehicle and equipment compliance testing will fund 30 frontal crash tests, 20 side impact crash tests, and 20 fuel system crash tests (the same level as FY 1995). The budget decrease of $577,400 in FY 1996 required NHTSA to reduce its frontal, side and fuel integrity compliance crash test program from the 70 tests described above to 52 tests. The budget increase in FY 1997 would restore this program to its historic levels, fund compliance testing for two new Compressed Natural Gas safety standards, and operate the agency's tire test facility.

Question. What did NHTSA's FY 1996 testing results find regarding compliance with heavy truck brake system standards? How much of NHTSA's FY 1996 and FY 1997 budget is allocated to address these concerns?

Answer. Revisions to FMVSS 121 have delayed the planned start for testing heavy vehicle brake systems. Based on the republication of the entire rule in the May 31, 1996 Federal Register, NHTSA plans to begin updating the laboratory test procedure late in FY 1996 and to complete those revisions and conduct testing to demonstrate the validity of the revised test procedure in FY 1997. Funding for these activities includes $25,000 in FY 1996 and $50,000 in FY 1997.

AUTO SAFETY HOTLINE

Question. Please break down in detail the $1,787,000 requested for the auto safety hotline and compare this to FY 1996 activities (SA-12).

Answer. The information is as follows:

	FY 96	FY97
COMPUTER SUPPORT	$35,163	$242,782
TELEPHONE BILL	0	330,000
PRINTING	90,000	150,000
CONTRACT PERSONNEL	378,500	660,300
DEFECT REPORTING	153,017	403,918
TOTAL	$656,680	$1,787,000

Question. Is the additional funding requested for the Auto Safety Hotline a one time request or does NHTSA anticipate requesting this amount every year?

Answer. Of the $1,787,000 requested for FY 1997, $201,000 are non-recurring costs for hardware upgrades. The remainder of the costs are recurring.

Question. How is NHTSA managing defect reports and information requests which arrive via the Internet? Would expanded use of the Internet for defect reporting provide a good source of information for NHTSA?

Answer. In late April 1996, NHTSA included in its Home Page on the Internet a vehicle owners questionnaire (VOQ) which consumers can complete and return via Internet to NHTSA. The VOQ is the method by which consumers report potential defects in motor vehicles and motor vehicle equipment. In April 1996,four VOQ's were returned via the Internet and in May 1996 37 VOQ's were returned via the Internet.

Expanded use of the Internet for defect reporting would provide a valuable source of information for NHTSA. NHTSA has recently updated its Hotline brochure and included the Internet website, as well as the Hotline number, for reporting defects. As other material is updated or developed, NHTSA intends to incorporate the Internet address in that material also.

Question. Could such use of the Internet save money for NHTSA?

Answer. While use of the Internet will become a valuable source of potential defects information, it is not clear what savings, if any, will be possible. The Auto Safety Hotline, which is NHTSA's single point of contact for the motoring public, will continue to play an important role in NHTSA's efforts to increase significantly consumer awareness of auto safety. Call volume has increased significantly in recent years, requiring additional resources to keep up with call volume. Although increased use of the Internet is a valuable public service, we must gain further experience to determine if Hotline call volume will decrease, or continue to climb.

Consumers can now access the Internet to determine if their vehicle has been the subject of a recall, to find out if others motorists have filed complaints with NHTSA about similar vehicles, to report a potential safety-related defect, or to obtain information about highway safety. Individuals who do not have access to the Internet, who need to speak directly to an agency representative to get safety information not specifically included at the Internet site, or who want to report a potential defect, but who also want to discuss the safety consequences of their specific problem, will always need to contact the agency by phone. The Hotline will continue to serve customers in that manner and the agency anticipates that as awareness of the Hotline increases, it will be used more than ever.

Question. What can be accomplished with an increase of $200,000 above the FY 1996 amount?

Answer. Services provided by the Auto Safety Hotline will be severely curtailed if the Hotline receives an increase of only $200,000 above the FY 1996 funding. The increase in Auto Safety Hotline expenses to pay for the phone bill alone is $330,000. This amount was not included in the Hotline's FY 1996 budget. Previously it was included under NHTSA's operating expenses, but has been included in the Hotline budget beginning with FY 1997 because that placement more accurately reflects the programmatic need. With an increase in the Hotline budget over FY 1996 of only $200,000, the agency would have to eliminate some services of the Hotline merely to pay the remaining $130,000 of the phone bill.

Additionally, the limited number of Hotline representatives currently have difficulty responding to consumers in a timely manner, resulting in a high hangup rate. The industry standard for hangups is 10 percent; however, in 1995 the Hotline hangup rate was 22 percent. This rate will deteriorate even more if the agency cannot hire additional contract representatives to handle the phone calls. Finally, the hardware used in the Hotline is out-of-date, in need of constant maintenance and needs to be replaced. If funds are to be used for this purpose merely to keep the Hotline functioning, then representatives will have to be laid off in order to fund these purchases. Laying off operators will mean that the hours of operation of the Hotline, currently 8 a.m. to 10 p.m., will have to be shortened. Other cost savings may need to be implemented, such as eliminating the FAX-back capability and reducing the literature that is mailed to consumers who request it by calling the Hotline.

AMERICAN AUTO LABELING ACT

Question. Please break down the uses of the $500,000 requested for vehicle Domestic Content Labeling. Why can't NHTSA personnel conduct the proposed audit (SA-18)?

Answer. The agency plans in FY 1997 to audit two carlines for each of two manufacturers by reviewing internal records and procedures for a sample population of parts in a carline. There are approximately 170 carlines sold in the United States by 21 manufacturers subject to the labeling requirements. Typically, each carline is made of 10,000 to 25,000 parts. The requested amount will fund a contract requiring $400,000 for direct labor, $90,000 for administrative and computer support, and $10,000 for travel and related expenses. The audit results will provide data to the U.S. Trade Representative and the Department of Commerce for assessing progress toward the goal of the U.S./Japan trade agreement to increase domestic content of Japanese automobiles and light trucks sold in the U.S. Outside contractor services are proposed for this effort because NHTSA personnel are fully utilized maintaining and improving safety, the agency's highest priority. Also, the safety-oriented talent pool of NHTSA does not include appropriate audit skills akin to those involved with financial auditing of large corporations by a CPA-level investigating team.

Question. NHTSA previously stated that it had not attempted to ascertain whether this Act had utility to consumers. Has this been done? If not, should NHTSA first ascertain the utility of this Act prior to requesting money to provide more accurate labeling?

Answer. The Act has several purposes including providing consumer information to help guide purchase decisions. We believe the domestic content label information is useful to consumers who are seeking to make more informed purchase decisions. For example, prospective purchasers can determine from information on the vehicle label where it was assembled, the percentage of U.S./Canadian parts content, and other information, which may be very important considerations to some consumers. Based on data provided to NHTSA by manufacturers, U.S./Canadian parts content for vehicles produced by U.S. based companies is very high and parts content for manufacturers based outside the U.S. for vehicles assembled in the U.S. is increasing. A key issue for consumers is the accuracy of these percentages, which can only be determined by comprehensive audits such as those proposed by the agency. We believe determining label accuracy is an important part of determining consumer utility.

The audits will also enhance the quality of data provided to the U.S. Trade Representative and the Department of Commerce, Automotive Affairs Office staff, in monitoring performance under the U.S./Japan trade agreement. Since the Act serves different purposes, assessments of the consumer information features as well as the issue of trade policy are appropriate. We will consult with the U.S. Trade Representative and the Department of Commerce on the means for assessing the utility of the Act.

Question. What section of the American Automobile Labeling Act requires the National Highway Traffic Safety Administration to conduct compliance audits?

Answer. The Secretary of Transportation is required to consult with the Secretary of Commerce, etc. to prescribe regulations including "...a procedure to verify the label information..." under Section 32304(e) of the Act. This responsibility was delegated to NHTSA which issued the detailed implementing regulation 49 CFR 583. Under the general authority of Section 32307 the Secretary may inspect and copy records of any person at reasonable times.

Question. NHTSA was created by Congress to be the nation's highway traffic safety agency. Please explain the highway safety benefits of the proposed domestic content compliance audits.

Answer. The American Automobile Labeling Act contains no direct safety benefits. Responsibility for implementing this Act was vested in NHTSA because of its overall familiarity with the worldwide automotive industry. Cost for monitoring domestic content labeling factors, other than data accuracy to be determined by audit of manufacturer records, is minimal and is included with other non-specific compliance activities.

Question. What are the criteria to be used in selecting the companies to be audited for compliance with the American Automobile Labeling Act (AALA)?

Answer. Specific data calculations, reporting and labeling requirements apply separately to each carline that a given manufacturer offers for sale in the U.S. Since the number of carlines to be covered in the audit program is small, top priority for audit selection will focus on those carlines with the greatest U.S. sales volumes. In the first year, NHTSA plans to include one U.S. and one non-U.S. based corporation.

Question. Will suppliers be audited? If so, what criteria are to be used in determining which suppliers are audited?

Answer. Suppliers will be audited to the extent that they supply parts for new motor vehicles. The audit team will be better able to determine the effects of outside suppliers as they evaluate the manufacturers data, and the term may recommend that supplier audits be conducted as necessary to ensure the accuracy of the manufacturers overall calculations.

Question. NHTSA officials have noted in their notice of proposed rulemaking that the same car with identical parts content can have an AALA value ranging from 11 percent to 53 percent, depending on the manufacturer/supplier relationship. What can be done to ensure that an accurate audit be conducted given the different treatment of the same parts under the AALA?

Answer. The American Automobile Labeling Act (AALA) requires automobile manufacturers to use a different percentage for the dollar content of parts obtained from an outside supplier versus those obtained from an allied supplier. With an extreme stack-up of multiple special conditions, it is possible that a given carline content calculation could yield this range of AALA values depending on applicable manufacturer/supplier relationships. The proposed factory audit team will be alerted to such potentially significant built-in variables in its audit searches and analyses of findings. It is also recognized that many manufacturers use dual sources to supply their high dollar and critical parts needs. The auditors will note significant differences whenever identical parts are obtained from allied suppliers as well as outside suppliers so as to identify and understand the impact of the different specified treatments.

HIGHWAY TRAFFIC SAFETY PROGRAMS

HIGHWAY TRAFFIC SAFETY PROGRAMS

Question. Please prepare a table indicating the amount appropriated and the amount actually spent for the different major categories and subcomponents of the Highway Traffic Safety budget. Please explain any deviation or reallocation of funds.

Answer. The information is provided on the following table:

HIGHWAY SAFETY PROGRAMS
CONTRACT PROGRAM SUMMARY

	FY 1995 Approp.	FY 1995 Obligated
Alcohol Drug & State Programs	$8,895,000	$9,536,585
Natl Occupant Protection	$5,689,000	$6,561,374
Enforcement & Emergency Services	$1,878,000	$2,244,149
Highway Safety Research	$3,809,000	$3,795,977
State Motor Vehicle Services		
(National Driver Registar (NDR))	$2,510,000	$2,685,586
(Records & Licensing)	$1,330,000	$1,498,725
Totals	$24,111,000	$26,322,396

NOTES:
1. Obligated amounts come from new appropriations, carry-over and recovery reimbursements
2. Excludes Section 410 appropriations and obligations
3. In FY 1995, the NDR appropriation is included in Highway Safety Grants (Section 402)
4. In FY 1995, NDR excludes portion for salaries and benefits

Question. Several programs seem to have a great deal of overlap. For example, the Target Populations, Patterns for Life, and Bicycle and Pedestrian Programs all are aimed, in part, at youth. How does NHTSA assure that there is no overlap among these programs?

Answer. The agency's programs are designed to provide the most effective and efficient outreach to the target audience. In order to achieve and maintain a widespread behavior change, outreach to any population needs to be conducted through a variety of highly credible networks. For example, the occupant protection message is targeted to youth through peer-to-peer programs such as the Students Against Drunk Driving, through civic groups such as the Future Homemakers Association, through classroom curriculum, and through medical groups such as the American Academy of Pediatrics. The agency's objective is to develop outreach programs with organizations that will be a credible source of influence on the target audience; have the capability to efficiently disseminate information to state and local affiliates; have widespread and repeated contact with the target; and be capable of incorporating the outreach activity into their ongoing mission.

It is often cost effective to have a single organization deliver multiple messages, as with the Students Against Drunk Driving who deliver both alcohol and occupant protection messages. However, the agency coordinates outreach activities internally to ensure that organizations are not over extended or paid more than once for similar activities. In fact, to carry this coordination beyond the agency, NHTSA has established the National Organizations for Youth Safety (NOYS) which periodically gathers a wide variety of groups involved in youth outreach to identify unmet needs and avoid redundancy.

Question. Please prepare a table indicating the FY 1994, FY 1995, FY 1996, and requested FY 1997 funds for each of the following activities/programs: NETS, TEAM, National Traffic Law Center, DEC, and the National Organization for Youth Safety. When will NHTSA's financial support of each of these organizations/programs end?

Answer.

	FY 1994	FY 1995	FY 1996	FY 1997
NETS	$150,000	$150,000	$100,000	$50,000
TEAM	$450,000	$440,000	$414,000	$400,000
NTLC	$300,000	$300,000	$300,000	$300,000
DEC	$2,800,000	$1,500,000	$907,000	$600,000
NOYS	---	---	$34,000	$100,000

NHTSA funding has helped create several valuable organizations and programs, including the five cited above. After 1997, all of these programs will be able to continue on their own with the assistance and continued support of various groups and individuals, primarily from the private sector. These organizations can, however, compete for NHTSA resources for specific agency products and needs. In some cases, they may be the best source for specific products or services.

Question. Please describe the successes and contributions of the Safe and Sober Campaign. Please quantify the scope and nature of the activities pursued during FY 1995 and FY 1996. Please breakout funding levels and activities for this effort for each of these years and present comparable expenditures planned during FY 1997.

Answer. The success of Campaign Safe and Sober (CSS) has been primarily about the extent to which state and local safety organizations have accepted and adopted the program and its materials into their own programs. From this aspect, CSS has been one of the most popular safety programs ever.

States have been somewhat more reluctant to implement the legislative and enforcement related components of the program. However, the strategy workshops and Special Traffic Enforcement Program (STEP) demonstrations, implemented as part of the FY 1995 and FY 1996 programs, have been quite successful in initiating legislative and enforcement action in many states. In these two fiscal years alone, 20 statewide STEP grants have been implemented and as many states have been assisted in their efforts to upgrade their safety belt, child passenger safety, or alcohol impaired-driving laws. These efforts have resulted in more than 20 upgrades in these areas.

Virtually all of the alcohol and occupant protection budgets, and a small portion of the Police Traffic Services budget, have supported Campaign Safe and Sober over the past two fiscal years. For FY 1995 and FY 1996, these levels have been $14.2 million and $16.6 million, respectively. NHTSA's FY 1997 request level will be level at $16.6 million.

SAFE COMMUNITIES

Question. What is the status of the Section 403 Safe Communities Demonstration Program?

Answer. A Federal Register Notice requesting applications for the Demonstration Program was issued April 4, 1996, with applications due June 4, 1996. Thirty-one applications were received. A committee will evaluate each proposal based on the evaluation criteria published in the Federal Register Notice. NHTSA plans to complete the initial evaluation by the end of June, and expects to make two awards by early fall 1996.

Question. The Safe Communities demonstration requests $1,800,000 in funding, an increase of $1,125,000 over the FY 1996 allocation. What specifically will be done with the additional funding? Why is the increase needed? Please break down in detail the expected uses of the $1,800,000 (HS-7).

Answer. NHTSA plans to fund four communities as part of the Safe Communities demonstration effort in FY 1997. Each Safe Communities Demonstration site will be a three-year effort funded at $450,000 for the three years, or an average of $150,000 per year. NHTSA's request for full funding this fiscal year allows each applicant to plan and budget activities for the full three-year period. For example, a program may have start-up expenses during the first year that will not reoccur in subsequent years. In addition, full funding ensures program continuity across the three year effort. All funds ($1,800,000) will be used by the Safe Communities sites for program demonstration, data collection, and evaluation activities. Depending on the results of the FY 1996 demonstration grant applications, NHTSA may consider requiring that half the funds (i.e., $225,000 per site for three years) be dedicated to data and evaluation activities.

Question. What would be the effect of holding Safe Communities funding to $375,000 above the FY 1996 level? What would these additional funds support?

Answer. With Safe Communities funding of $1,050,000 (an increase of $375,000 above the FY 1996 level of $675,000), NHTSA would fund two additional demonstration projects at a level of $175,000 per year for three years. However, limiting funding to only 2 sites would also hamper NHTSA's ability to test the safe communities concept in a variety of communities (e.g., size, demographics, urban vs. rural), with a range of problems, and a range of approaches for addressing those problems (e.g., using hospitals to mobilize the community, using business to mobilize the community, enlisting health care providers as focal points for injury control). Restricting funding to two additional sites also limits NHTSA's ability to develop and disseminate programs and products that are based on diverse community experiences and are responsive to community concerns, can be tailored to the needs of individual communities, and can be easily implemented by communities.

Question. What is the minimum amount required to fund one additional pilot?

Answer. NHTSA estimates that the very minimum in federal funds required to support a Safe Communities demonstration and evaluation in one site is approximately $150,000 a year for three years, bringing the total federal contribution to about $450,000 for the three-year effort. At this very minimum amount, applicants must find outside funding to supplement data collection, program activities, and evaluation efforts. Given the complexity of the Safe Communities demonstration effort and the questions NHTSA has received concerning funds available for the FY 1996 demonstration effort, it is clear that this level is considered low by many potential applicants. NHTSA has kept its FY 1997 budget request to $450,000 per site to keep funding minimal, but is aware that additional funds would improve data collection, program demonstration and evaluation in the demonstration sites.

Question. Given the administration's emphasis on the Safe Communities program as a priority program, why did it take until April 1996 to issue a formal solicitation regarding the fiscal year appropriation?

Answer. The Section 403 Safe Communities Demonstration program is the cornerstone of the Safe Communities Program. Given that future Safe Communities implementation efforts will be dependent on the outcomes of the demonstration program, it is important that the Safe Communities concept and evaluation parameters be well articulated. Consequently, NHTSA staff devoted considerable effort to adequately defining the characteristics of a safe community, as well as what information NHTSA wanted to obtain as a result of the evaluation effort. The Federal Register Notice issued in April represented the combined efforts of a team of NHTSA staff in characterizing this priority program.

Question. How many pilot programs are necessary to establish that the program is effective? When does NHTSA plan to decide on the effectiveness of the program?

Answer. The Safe Communities approach is a new and untested approach in the U.S. While NHTSA has devoted considerable effort to define this approach, actual implementation must take into account the diversity of communities -- size, demographics, urbanicity, existing coalition and program infrastructure, problems, solutions to problems. NHTSA estimates that funding a total of about 10 demonstration and evaluation sites will allow not only for a consideration of a variety of communities, problems and solutions to problems, but also allow comparison of approaches across communities. Moreover, 10 demonstration sites will allow for sufficient geographical diversity to ensure greater acceptance of the approach among states and localities. NHTSA will decide on the effectiveness of the program following the completion of the demonstration projects; however, interim results will be disseminated as they become available.

ALCOHOL, DRUG AND STATE PROGRAMS

ALCOHOL PROGRAM

Question. What is NHTSA doing to improve enforcement of impaired driving, especially with regard to the use of sobriety checkpoints?

Answer. NHTSA actively promotes improved impaired driving legislation including administrative license revocation (ALR), "zero tolerance" for youth, and .08 per se laws. These laws will remove impaired drivers from our highways, deter youth consumption of alcohol, and make it easier for the criminal justice system to process cases. Ongoing alcohol research projects like the evaluation of passive alcohol sensors and the field testing of a laser alcohol detection device support the development of new and improved detection technology.

Under the Safe and Sober program, police officers are encouraged to consider impaired driving, belt usage and speeding as priorities when working traffic enforcement. Concentration on these violations is considered the most efficient and effective use of an officer's traffic enforcement time. NHTSA continues to study another benefit of traffic enforcement, the link between traffic enforcement and arrests for other criminal violations.

The agency has three ongoing projects related to sobriety checkpoints. The first project will develop and field test an improved means of rapidly screening drivers stopped at sobriety checkpoints. The second project will develop a high-technology sensor system that can be used to measure drivers approach behaviors and determine if their driving warrants closer examination by the officers conducting the checkpoint. The third project is a follow-up project that will promote the successes of the Tennessee Sobriety Checkpoint Project by providing technical assistance to other states. During the demonstration project, law enforcement agencies processed 150,000 drivers through 700 checkpoints across the entire state. The impact evaluation of this 9-month demonstration showed that the checkpoint program reduced drunk driving fatal crashes by 17%. NHTSA will use these results to encourage increased use of sobriety checkpoints by national law enforcement organizations, state and local police, and sheriffs.

Question. Please break down in detail the expected uses of the $9,015,000 requested and compare these amounts to the FY 1996 program. Why is an increase needed at this time?

Answer. The Alcohol program budget is divided into the following areas:

Area	FY96 Budget	FY97 Request
	(000)	(000)
Education and Prevention	$3,116	$3,492
Enforcement & Sanction	2,335	1,890
Courts	1,175	800
Youth	1,772	1,138
Innovative Grants (Partners in Progress)	0	1,695
	$8,398	$9,015

The major change in the fiscal year 1997 Alcohol Program budget from fiscal year 1996 is the initiation of Innovative Grants--Partners in Progress (Partners). These Innovative Grants will stimulate and support the development of innovative approaches to alcohol highway safety problems and infuse new ideas into the existing programs.

Partners began with a meeting of representatives of over 50 organizations in February 1995 to establish a new national impaired driving goal (no more than 11,000 alcohol-related fatalities by 2005) and to explore strategies for achieving this goal. Through an implementation group representing the states, law enforcement, courts, licensing, education, health and injury prevention, the alcohol industry, insurance, and others, Partners will implement these strategies with a variety of creative, actions in areas such as law enforcement, youth programs, and responsible alcohol service.

Innovative grant funds will be used for projects solicited from states, communities, and non-profit organizations. The funds will help develop innovative solutions, test them in varying geographic, demographic and legal environments, and disseminate the results widely. For example, communications programs directed to high-risk youth or culturally diverse populations could be tailored to specific population groups based upon focus group and marketing analysis. Alcohol interlock or laser alcohol detection devices could be tested in different settings to determine how they can be used most effectively. Program results will be shared through our technology and technical assistance initiatives.

Budget adjustments in the remaining Alcohol Programs budget categories reflect minor redirections and phase-out of other programs.

Question. What specific areas of the alcohol program will be enhanced with the additional funds requested and why were these areas selected? What are the highest priorities in the alcohol program?

Answer. The major change in the fiscal year 1997 alcohol program budget from fiscal year 1996 is the initiation of Innovative Grants--Partners-in-Progress. These Innovative Grants will stimulate and support the development of innovative approaches to alcohol highway safety problems and infuse new ideas into the existing programs. Budget adjustments in the remaining alcohol program areas reflect minor redirection and phase-out of other programs.

The highest priority in the alcohol program is to continue progress towards the Department's goal to reduce alcohol-related fatalities to 11,000 by the year 2005. This will be accomplished by increasing our partnerships; expanding our programs to reach culturally diverse populations; improving our customer service; continuing the highly successful Safe and Sober Campaign; demonstrating new alcohol detection technology; and enhancing our public communications program. All these recommendations will address recommendations made at the 1995 "Partners-in-Progress" meeting on alcohol goals and strategies for 2005.

Question. What studies does NHTSA have underway or planned that will help the criminal justice system deal with the drug impaired driver?

Answer. The agency has several research projects underway that will improve our ability to deal with drug impaired drivers: National Survey of Drug Use and Driving - will develop information on specific characteristics of people and situations associated with drugged driving; Testing of Drug Screening Devices - may provide additional tools for law enforcement and others to screen for drugs; Model DEC Site Experience Study - will result in a model for states and agencies to use when setting up programs; Improved Interview Procedures - may provide improved interview protocols for law enforcement officers when dealing with suspected drug impaired drivers; Drug Involvement in Non-fatal Injury Crashes - will provide valuable data on the incidence of drug use among drivers and the role of the drugs in the crashes.

Question. Please bring us up to date on the number of States that have adopted stronger laws directed at reducing the number of incidents of teenagers driving impaired. Please specify which States since last year have adopted "use or lose," graduated licensing, open container, and lower alcohol thresholds for convictions of impaired driving laws for youth. Any other significant legislative changes?

Answer. There has been no change in the number of states that have "use or lose" laws or open container laws. Three states (Florida, Kentucky and Virginia) have enacted graduated licensing laws. Four states (Alabama, Florida, Indiana and Kentucky) have enacted "zero tolerance" laws, setting the alcohol threshold at .02 BAC or less for drivers under age 21. As of late June 1996, zero tolerance laws await the Governor's signature in Alaska and Missouri.

Question. What has NHTSA done during the last year to improve the enforcement of drunk driving laws affecting youth? How does NHTSA's FY 1997 budget request address this issue? Please compare the FY 1997 request to FY 1996 expenditures and present a table showing the comparison by highlighting key program activities.

Answer. Numerous ongoing and newly initiated projects are directed at improving enforcement of drunk driving laws and drinking laws affecting youth. Ongoing programs include development of a manual and videotapes that provide motivation and technical information for police management and line officers to improve enforcement activity. Resources have been provided to the "youth enforcement training workshops" to enhance zero tolerance enforcement. A youth traffic safety state assessment program is being developed to assist states in assessing, among other issues, their youth enforcement and adjudication activities. NHTSA is assisting Remove Intoxicated Drivers (RID) in conducting workshops directed specifically at increasing enforcement of underage drinking laws. The agency is also assisting the National Association of Governors' Highway Safety Representatives (NAGHSR) in conducting comprehensive youth demonstration programs, which include enhanced enforcement efforts, in five cities. NHTSA and the Department of Justice are also concluding five demonstration sites focused specifically on enhancing the justice system response to juvenile impaired driving. We also have a project with state alcohol beverage control agencies to identify effective programs to deter sale of alcohol to those underage.

A number of projects address post-arrest activities, which can influence enforcement activities. These include development of "Teen Courts" (with the Department of Justice), youth "visitation" to shock trauma units, appropriate sanctions for youthful offenders and appropriate detention alternatives.

The FY 1997 budget will allow the continuation of many of these programs and the initiation of new efforts. New initiatives will focus primarily on enforcement of zero tolerance laws. Two general approaches will be used. The first will provide additional resources to enforcement organizations to enhance local activities. The second will provide resources to prevention groups involved in National Organizations For Youth Safety (NOYS) to form partnerships with local police to increase awareness and enforcement efforts.

The following table delineates the project areas by fiscal year.

Enhancing Youth Enforcement Efforts
FY 1996, 1997 Project Funding

PROJECT	**FY 1996**	**FY 1997**
Teen Courts	$100K	
RID Workshops	$46K	
Juvenile Visitation	$80K	
Evaluation of Magnetic Stripe for Underage ID		$60K
Youth Demonstration Sites	$207K	
Alcohol Beverage Control	$75K	$100K
Juvenile Detention	$75K	$75K
NOYS Enforcement		$100K
Youth Sanctions	$75K	
Zero Tolerance Enforcement		$200K
Enforcement Workshops	$50K	
TOTAL	**$708K**	**$535K**

Question. How many States have graduated licensing systems? Are any new States considering them? What is the status of NHTSA grants in this area and what results have been achieved to date?

Answer. Although licensing practices vary from state to state and no state has a comprehensive graduated licensing system, several states have components of a system. Eight (8) states have three stages of licensing: California, Colorado, Maryland, Massachusetts, New York, Pennsylvania, West Virginia, and Wisconsin. These states require a learner's permit and have an intermediate license (e.g., provisional or junior license), prior to a full unrestricted license.

Four (4) states require a two-tiered licensing system and have several components of graduated licensing: Illinois, New Jersey, Oregon, and Vermont. Illinois and New Jersey require a permit prior to full unrestricted licensure. Oregon and Vermont do not require a learner's permit but do have an intermediate license prior to full unrestricted licensure.

Four (4) additional states, Idaho, Louisiana, South Carolina, and South Dakota, do not have graduated licensing systems but do have one of the highly recommended components of such a system-- nighttime driving restriction.

New graduated licensing laws have been enacted in Florida, Kentucky and Virginia. Alaska, Connecticut, Hawaii, Indiana, Maryland and Michigan introduced graduated licensing legislation in 1996. This legislation is still pending in Connecticut and Michigan.

Five (5) states have received NHTSA grant awards in the area of graduated licensing, they are:

Alaska - $77,000, 9/30/96, graduated licensing bill passed the house but not the senate. Will be re-introduced next year.

North Carolina - $397,000, 9/30/96, a modified bill was passed by the Senate in 1995. North Carolina plans on resubmitting the original comprehensive bill in 1997.

Florida - $225,000, 6/30/98, graduated licensing components have been enacted in the 1996 legislative session.

Tennessee - $317,700, 6/30/98, in the process of establishing a task force to recommend components of a graduated licensing system.

Vermont - $183,000, 6/30/98, graduated licensing components to be introduced in the legislature this year.

We are in the process of extending the North Carolina grant for two years to 9/30/98. We are considering extending the Alaska grant for the same period of time.

DRUG EVALUATION AND CLASSIFICATION

Question. Please specify in detail the current (FY 1996) and the planned (FY 1997) activities regarding DEC.

Answer. In FY 1996 the DEC program became fully institutionalized in the states with the continuing technical assistance from the International Association of Chiefs of Police (IACP). Research to streamline the DEC procedures and training for law enforcement officers was completed. Limited funding was used to coordinate and provide training materials to the states. Data are being collected to determine the extent of injuries caused by drug-impaired driving. Technical legal expertise was provided to prosecutors and courts nationwide to successfully litigate drug impaired driving issues in pre-trial hearings and in criminal trials. A law-trained Drug Recognition Expert (DRE) is serving in a one-year temporary duty assignment to instruct, research, write, and maintain the accuracy and quality of prosecutor and judicial programs on the DEC program.

In FY 1997 NHTSA will continue to work with IACP to assure continuity of the DEC program components and further assist recent states in fully implementing their program with minimal federal help. Legal research and training for prosecutors and judges will be continued to counter new court challenges anticipated as the program expands within the DEC states. Another prosecutor or law-trained DRE will serve in a one-year temporary duty assignment to enhance the drug impaired driving program. Scientific research activities will field test new technology to determine drug use by drivers, allowing for early interdiction by the courts and law enforcement.

Question. How could the Federal role in DEC be reduced further? What findings or benefits have resulted from NHTSA'S research over the last several years?

Answer. During the early 1990s, the agency completely directed site selection and program qualification, classroom training and program standardization and implementation within the states. The program is now managed by the states. The International Association of Chiefs of Police (IACP) develops and maintains the national standards for the program. The IACP also provides management of the national certification procedures and helps states and local jurisdictions with program training and technical information.

NHTSA's current role is one of providing limited technical assistance, research and development of new technology to assist the drug impaired driving program. These three components are appropriate federal functions. To many states, drug abuse and drug impaired driving are major community safety issues which require federal leadership to address. The change in NHTSA's role has reduced funding from a high in FY 1994 of $2.2 million, to the request for FY 1997 of $600,000.

Agency research over the past years has been responsible for: the development of better methods for police officers to identify the physical signs and symptoms of drug impaired drivers, the adoption of specific performance standards for training of drug recognition experts, development of model training site requirements to ensure success when starting a DEC program, validation of the effectiveness of the DEC 12 step evaluation procedures, acceptance in state and local courts of the program components, increased prosecution and adjudication of drug impaired drivers, and revitalized state and local advanced impaired driving programs.

PEDESTRIANS AND BICYCLES

Question. The funding request for this program is $474,000, nearly doubled the FY 96 appropriation. What will be done with the additional funds (HS-20)?

Answer. An estimated 131 million Americans regularly bicycle or walk for exercise, sport, recreation, or simply for relaxation and enjoyment of the outdoors. As more diverse populations utilize these environmentally-friendly modes of transportation, exposure to safety risks have also increased.

Pedestrian and bicycle fatalities constitute about 16 percent of traffic fatalities annually. For each of these fatalities, there are about twenty-four serious injuries. Economic costs to society due to pedestrian fatalities and injuries total more than $13 billion. Alcohol impairment is prominent among the victims of these crashes.

The requested funding for FY 1997 will be used to develop new strategies to prevent pedestrian and bicyclist fatalities and injuries. These strategies will encompass the creation of: innovative public information media, effective and enforceable legislation (for bicycle helmets, etc.), and comprehensive community programs. The agency works closely with other federal agencies (FHWA, CDC, CPSC, DOE) and national organizations to ensure that these strategies are included in the development of community programs.

A new program to provide guidance for transportation of pre-kindergarten children to and from school will be developed for school transportation administrators. An in-service training module for school bus drivers will also be developed to address the safety issues of handrail snagging, railroad crossings, school bus routing problems, and the transportation of pre-kindergarten children.

NHTSA will also continue to work with the National Football League and Major League Baseball to develop and conduct traffic safety events at major sporting events.

The Partnership for A Walkable America will be continued. This is an alliance of public and private organizations and individuals who are committed to making America more walkable. The organization works as a partner with the DOT Secretarial Initiative for Pedestrian and Bicycle Safety and other federal projects to strengthen and enhance "safe communities" throughout the United States. The Partnership represents the safety, health, and recreation interests of all populations, including senior citizens and children.

Question. What would be the effect of restricting funding to current levels? Why is the requested increase needed at this time?

Answer. This year's request for funding reflects the Secretary's focus on pedestrian, bicycle, and school bus safety programs. This program focuses on the affiliation between FHWA and NHTSA. This funding request also reflects the fact that, in the pupil transportation area, there have been a series of highly visibility crashes and clothing snagging issues that require immediate corrective action.

Finally, it should be noted that the level of funding requested in FY 1997 is the same as that requested over the past two fiscal years. Because of cuts in previous appropriated levels, several important projects had to be delayed or canceled, despite the fact that the safety hazards remain.

Question. Which organizations received the FY 1996 monies? For which amounts? For which purposes?

Answer. The following describes the program activities conducted within the FY 1996 budget program.

- Bicycle Federation of America - $20,000 - To assist in the conduct of the bi-annual international pro-bike conference in Portland, Maine this September.
- Pedestrian Federation of America - $36,000 - To conduct a series of 10 pedestrian planning programs in communities desiring to implement pedestrian safety programs. This is in support of the joint NHTSA/FHWA pedestrian safety program.
- Arizona Governor's Office of Traffic Safety - $20,000 - To assist in the conduct of the NHTSA, National Football League and Riddell *Ride like a Pro* bicycle safety event at Super Bowl XXX in Phoenix, AZ.
- Romano and Associates - $25,000 - To work with Major League Baseball in conducting 2 bicycle safety rodeo events (in Baltimore and San Diego), which are similar to the *Ride Like a Pro* event conducted with the National Football League.
- West Virginia University School of Medicine - $16,000 - Participation in graduate coop program. The agreement enables a graduate student to work part-time on pedestrian and bicycle safety issues while completing a Masters of Science in community health.
- Lisboa and Associates - $71,000 - Development of pedestrian safety materials for elderly Hispanics. This is in support of the joint NHTSA/FHWA pedestrian safety program.
- Lisboa and Associates - $65,000 - Development of a pedestrian safety "toolbox" to assist communities in identifying effective resources in the implementation of pedestrian safety programs at the state and community level. The toolbox will be a compilation of known effective technical resources and countermeasures presented in a user friendly package. This project is in support of the joint NHTSA/FHWA pedestrian safety program.

Question. How does this program relate to FHWA's Bicycle and Pedestrian Program?

Answer. Several years ago, NHTSA and FHWA recognized the importance of working together on a coordinated pedestrian and bicycle safety program. Both agencies agree that that enforcement, education and engineering approaches work best together, as part of a total system. As a result, the two agencies have been pursuing a joint multi-year bicycle and pedestrian program plan. Each agency has taken primary responsibility for various activities within the joint program. The activities listed in the FY 1997 NHTSA budget reflect those activities in the joint program that NHTSA is responsible for. These activities are coordinated with and complement the FHWA programs.

INCREASING USE OF SAFETY BELTS

The use of safety belts has long been considered an effective way to reduce deaths and injuries on the nation's highways. The Department of Transportation estimates that 10,000 additional lives could be saved annually if all occupants of motor vehicles used safety belts. More than 40,000 people have died in traffic accidents in the U.S. almost every year since 1960. About 20,000 occupants of motor vehicles die in crashes while not using safety belts. Traffic crashes cost society over $130 billion annually. NHTSA estimates that the deaths and injuries related to the non-use of safety belts costs society about $20 billion annually in medical costs, lost productivity, and other injury-related expenses. Seat belt use saves lives and dollars. Forty-nine of the 50 U.S. states have mandatory seat belt use laws. Only New Hampshire does not.

Question. It was recently reported that NHTSA is launching a campaign to get states to pass so-called primary laws to encourage greater use of safety belts. Is this true? If so, what is the nature and status of this campaign? For example, how do you intend to go about encouraging the states to do this, how much money is involved, and what is the source of the funding?

Answer. Assisting states to upgrade their safety belt laws to allow for primary enforcement continues to be a priority agency effort. NHTSA has conducted a variety of activities to facilitate these state legislative initiatives. The agency's national priority program, Campaign Safe and Sober, includes state legislation as a central campaign strategy. This campaign provides states with quarterly resource packages that include a range of support materials for upgrading laws. They include items such as fact sheets, legislative digests, and point-counterpoint discussions. The national emphasis created by Campaign Safe and Sober has also provided states with a common focus for conducting their own strategy sessions and building their own coalitions in support of improved legislation. NHTSA regional personnel work closely with the states in conducting strategy sessions, building coalitions, and responding to day-to-day requests with regard to efforts to upgrade legislation.

The agency regularly responds to state requests for customized materials, testimony, and technical assistance in support of upgrading safety belt laws. NHTSA has developed computer software which allows states to estimate the benefits of various levels increases in safety belt usage which may result from such upgrades. States can perform these calculations themselves to determine the magnitude of deaths, injuries and economic costs prevented, or they may request that NHTSA perform these analyses. This information provides compelling testimony for their legislative upgrade efforts.

The agency has conducted a number of technical evaluations to provide scientific evidence in favor of upgraded laws. An evaluation of the California upgrade to primary enforcement was conducted, a similar evaluation of Louisiana's experience is now underway, and another evaluation is being planned to document the impact of Georgia's change to primary in July 1996. Another recent study utilizes time-series analyses to estimate the impact of primary enforcement and higher fines for safety belt law violations.

To further assist states in their efforts to upgrade their safety belt laws, the agency has developed model safety belt and child passenger protection laws. These models incorporate the best knowledge and experience to date and provide states with descriptions and rationale for pursuing the most effective legislative upgrades.

To date, three states have upgraded to primary enforcement. California was the first state with such an amendment, upgrading their law in 1993. Louisiana followed with an upgrade in 1995. Georgia is the most recent, upgrading their law in 1996. The agency is currently working with Louisiana, and has offered assistance to Georgia, to design education, media and enforcement efforts to ensure that the new law is implemented effectively.

NHTSA expects the promotion of primary enforcement will increase over the next several years as a result of the efforts of the National Automotive Occupant Protection Campaign (NAOPC), a public-private coalition created in May 1996 to alert the public to the interaction of air bags with unrestrained or improperly positioned passengers, particularly children and infants. Legislative improvements will be pursued by this coalition as a proven method for increasing seat belt use. NHTSA staff are ex-officio members of the operating committees of the coalition, and NHTSA will provide technical assistance to their efforts.

The agency's support for primary law evaluation, technical assistance and material development and distribution, which is folded into the overall national program effort, is roughly estimated to be between $200,000 to $300,000 annually. It has not been determined how much in additional resources will be contributed by NAOPC. However, it will take a substantial amount of additional resources to enact primary enforcement upgrades in the majority of states in the next 2-3 years.

Question. It has also been reported that a large percentage of new vehicle sales in the United States consist of light trucks which are not covered under some state safety belt use laws. How many states have safety belt use laws that do not cover the occupants of light trucks? Are you planning any special campaigns in an attempt to increase belt use among this part of the driving population?

Answer. There are three states with belt use laws that still do not cover the occupants of light trucks. They are Georgia, Indiana, and Missouri. Over the past decade, several States that originally exempted these vehicles, upgraded their laws to include them. The agency's current program is designed to increase safety belt use among all populations, but it does include special emphasis on increasing usage in light trucks. The following activities are being implemented in FY 1996 and they will extend into FY 1997: (1) development of a special Vince and Larry spot to focus on light truck belt use; (2) implementation of a rural outreach initiative on belt use, where there is the highest density of light truck drivers; (3) encouragement of the 20 Special Traffic Enforcement Program (STEP) demonstration States to include special public information and education efforts to reach light truck drivers and make them aware of ongoing enforcement efforts; and (4) conduct of a series of focus groups with young male light truck drivers and using the findings in future public information, education and other program efforts. As part of Campaign Safe and Sober, we are encouraging all states to conduct special public information programs directed at drivers and passengers in pick up trucks.

Question. Could you tell us what you believe to be the overall nationwide usage rate for safety belt use?

Answer. For 1995, NHTSA estimates that the nationwide usage rate was 68 percent. This estimate is based on state-reported, observed use surveys. At the end of each calendar year, NHTSA requests that states submit their most recent safety belt usage data. NHTSA weights the results of each state's survey by that state's proportion of the total U.S. population and aggregates these weighted results to develop the above estimate.

While there are some differences in the coverage of surveys among states, there are several benefits derived by collecting state usage rate data and by aggregating such data to track progress toward reaching national goals. Statewide surveys are an essential part of each state's comprehensive safety belt program. These surveys are the only means for tracking progress in the individual states and they provide the only data currently available on an annual basis. By collecting and publishing these rates annually and by using these data as a part of the national usage rate estimation process, the agency provides an incentive for the states to conduct high quality surveys by which to measure their own program progress and their contribution to achieving national use goals.

Question. At one time, the Department of Transportation had a goal of a nationwide seat belt usage rate of 75 percent by 1997. Is this still the goal or has it been revised? If it has been revised, what is the new goal and when do you think it can be accomplished?

Answer. The goal has not changed. Although it will be difficult to reach, the agency is exerting every possible effort to reach 75 percent usage by the end of 1997. Success in reaching that goal will depend heavily upon successfully implementing periodic, highly-publicized enforcement efforts in the NHTSA STEP (Selective Traffic Enforcement Program) demonstration states and it will depend on several additional states upgrading laws to primary enforcement. The very popular public information component of Campaign Safe and Sober will also contribute to this success.

The efforts of the National Automotive Occupant Protection Campaign (NAOPC) should also contribute significantly to achieving the 1997 goal. The NAOPC is a public-private coalition created in May 1996 to alert the public to the interaction of air bags with unrestrained or improperly positioned passengers. This coalition is building on the proven program initiatives of the agency to increase belt usage and air bag interaction awareness by pursuing a three-point program comprised of: (1) intensive public education, (2) occupant protection use law improvements, and (3) the adoption of enforcement programs similar to the agency's STEP demonstration program, currently operational in twenty states.

Details on how the coalition will implement its program are still under development, but private sector members have pledged significant resources to increase safety belt usage over the next two years. Agency staff are providing technical assistance to the coalition. The agency's programs will be strategically coordinated with the coalition's to obtain maximum impact on the national belt use rate.

NATIONAL OCCUPANT PROTECTION PROGRAM -- BELT LAW COMPLIANCE

Question. What has been learned so far from the grants provided under this program?

Answer. Six states that participated in the FY 1993-1994 STEP demonstration program achieved belt use rate increases of 4-5 percentage points over their 12-month demonstrations. States which did not participate in the program averaged only a one percentage point increase over that period of time. Participating states developed and implemented specific approaches for implementing the demonstration program within their own unique program structures. Each state built upon its existing strengths and capabilities, using the grant funding, to achieve the enhanced coordination and expanded participation necessary for the demonstration.

Currently, 20 states are conducting similar statewide, closely-coordinated, and highly-publicized enforcement programs to increase the use of safety belts and child safety seats. As before, implementation strategies and program promotion are tailored to each state's unique environment. Nine of the states have now reported on the results of their first wave of program activity. As a result of this first wave of activity, participating communities within these states are reporting 3-5 percentage point increases in belt use. These results are comparable to the "participating community" increases reported during the 1993-1994 program.

Smaller communities have frequently reported greater increases, sometimes as great as 15-20 percentage points. This also occurred in the 1993-1994 program. It is likely due to lower pre-wave use rates in those communities. Overall, the results reported to date indicate that the program is effective in increasing belt use among low-use, high-risk, and hard-to-reach populations, bringing these communities closer to the average use rate of the state.

Results reported by Florida and Virginia provide good examples of the statewide benefits of these demonstration programs. In Florida, following the first wave of activity, seat belt use rose an average of 4.6 percentage points in participating communities. The effort included 258 enforcement agencies (including the Highway Patrol) and resulted in 58,500 arrests and citations, including: 13,865 safety belt and child restraint citations; 16,315 speeding citations; 1,392 DWI arrests; over 23,000 citations for other traffic violations; 302 felony arrests; 1,121 drug arrests; and 160 fugitive arrests.

In Virginia, 55 local police and sheriff agencies and the State Police participated in a program which resulted in a three percentage point increase in observed belt use. Police made 570 DWI arrests and issued 10,875 speeding citations, 2,836 belt citations, 337 child restraint citations, and over 16,000 citations for other traffic violations. In addition, 800 criminal arrests, plus numerous felony arrests for weapons violations, wanted persons and drug/narcotic violations were made.

Question. How successful has NHTSA been in changing seat belt laws from a secondary enforcement law to a primary one? Please list the states that have strengthened their laws during the past year.

Answer. In the past year, Louisiana and Georgia have upgraded their laws to permit primary enforcement, effective September 1, 1995, and July 1, 1996, respectively. Several other states have introduced bills to adopt primary enforcement. Washington, Arizona, Utah, Minnesota, Michigan, New Jersey, Maryland, South Carolina, and Florida.

There have been other significant changes in state safety belt use laws in the past year. For example, Maine enacted a safety belt use law, effective December 27, 1995, and Arkansas increased its fine for a safety belt law violation from $25 to $30. In addition, several states have reported increases in their observed, statewide usage rates, which reflects a strengthening in public compliance with their belt use laws.

Question. Will grants eventually be provided to all 50 states?

Answer. No federal grants have been provided to states for legislative activity. Twenty states have been provided grants for STEP enforcement programs. While additional states may receive STEP demonstration grants, it is not likely that all states will be given grants. The initial grant process was competitive, with program grant proposals requested from all interested states. These proposals were then ranked competitively and awards were made. Current efforts are focused on making the existing grants as successful as possible.

There may be additional promotion of intensive statewide enforcement and education programs over the next several years. This will be the result of a public-private coalition created to alert the public to the interaction of air bags with unrestrained and improperly positioned passengers. This coalition, the National Automotive Occupant Protection Campaign (NAOPC), was formed in May 1996 to increase seat belt and child safety seat use. Statewide enforcement and education programs will be promoted by the coalition to increase belt use. We have not yet determined how this will be done, how much the coalition will devote to this program activity, and how many states will be involved.

NATIONAL OCCUPANT PROTECTION PROGRAM -- TARGET POPULATIONS

Question. This program targets youth. The Bicycle and Pedestrian program and Patterns for Life also involve youth. What mechanisms are in place to ensure that there is no overlap?

Answer. The agency youth programs are coordinated internally to complement one another and avoid redundancy. These programs are designed to utilize a range of delivery networks, including health and medical organizations, civic and peer groups, and law enforcement, to ensure that youth are receiving the traffic safety message from all directions. This repetition of the message from a range of credible local sources has the greatest potential for affecting and maintaining the desired behavior changes.

To facilitate coordination of programs that are conducted both inside and outside of the agency, NHTSA has established a forum in which groups that are conducting youth activities can share plans, experiences and resources. This combined group of advocates, known as the National Organizations for Youth Safety, meets annually to identify and discuss unmet needs and to plan complementary activities.

Question. Target Populations requests a total of $1,637,000 for FY 1997. This is an increase of $384,000 above the FY 1996 level. Please detail the uses of the additional funding (HS-39).

Answer. Additional emphasis will be placed on expanding outreach activity to new partner organizations and to address specific high-risk populations. This expanded outreach will focus on increasing awareness and understanding of the air bag injury problem, especially the risk to improperly restrained children. Organizational outreach will be expanded to include new intergovernmental partners that will conduct activities to support upgraded safety belt and child passenger protection legislation and high visibility law enforcement programs. A network of intergovernmental groups will be established to facilitate peer-to-peer information and resource sharing among local officials. Targeted groups will include those who are at high risk of air bag injury, especially older children, and previously unaddressed groups such as out-of-home day care providers.

Question. How does the effort to upgrade state enforcement efforts of seat belt laws relate to the Belt Law Compliance initiative?

Answer. The agency is devoting significant resources to increase the level and visibility of enforcement of state safety belt use laws. The major portion of these resources (about $1.3 million) comes from the Belt Law Compliance effort. Additional support comes from the Public Information and Education effort (e.g. brochures, guidelines, and other media materials) and from the Target Population Education effort (e.g. information and technical assistance workshops, outreach with police and other organizations, etc.). Most of the funds from the Belt Law Compliance effort are used to support demonstration grants to the states for the implementation of statewide waves of highly visible enforcement and public education.

The current level of funding available for statewide enforcement demonstrations is far from adequate. The highly successful North Carolina project, for example, is funded at a level of approximately $1 million per year. However, additional private sector funds are being directed into this area to fill some of the gaps that currently exist in the states funded through NHTSA grants. General Motors Corporation is contributing funds to supplement the public information efforts of several statewide enforcement programs. In addition, the new National Automotive Occupant Protection Campaign (NAOPC) is including enforcement of safety belt and child passenger safety laws as one of its priority approaches for increasing proper restraint usage. It has not been determined exactly what actions the NAOPC will take to increase the level of state occupant protection enforcement efforts or what resources it may devote to this issue.

NATIONAL OCCUPANT PROTECTION PROGRAM-EVALUATION AND TECHNOLOGY SHARING

Question. Which new activities under this activity (Evaluation and Technology Sharing) require the additional funding (HS-43)?

Answer. At the request of the state highway safety offices the 2-year Campaign Safe & Sober has been extended for two more years through FY 1998. This campaign has resulted in a dramatic increase in the level of materials requested by the states and participating local programs, consequently increasing production and distribution costs. Orders for materials have more than doubled in the last two years.

Other programs initiated by the agency in FY 1995 and FY 1996 (Moving Kids Safely, Safe Communities, and Patterns for Life) have proved quite popular with the States as well as the public, and are generating increasing demands for materials as well as conference support.

In addition, more and more states are succeeding in upgrading their belt use laws from secondary to primary, requiring additional funds for evaluations of state implementation efforts, such as those conducted subsequent to the California, Louisiana, and Georgia primary law upgrades. NHTSA will continue to monitor the level of safety belt and child safety seat use due to upgraded safety belt and child passenger safety laws and to provide technical assistance to the states in improving their belt usage surveys.

NHTSA will conduct its second national Motor Vehicle Occupant Safety Survey consisting of two telephone questionnaires. Each questionnaire will be administered to two groups of 4,000 randomly selected households, one on safety belt use and the other on child safety seat use.

NATIONAL OCCUPANT PROTECTION PROGRAM -- PATTERNS FOR LIFE

Question. The Patterns for Life program targets child seat belt use. The Target Populations program, detailed on page HS-39, does also. What mechanisms are in place to ensure there is no overlap between programs?

Answer. The Target Populations and Patterns for Life child passenger safety initiatives are coordinated to ensure that an optimal combination of outreach and education approaches are being pursued, without allowing any redundancy of effort.

The Target Populations program includes a broad based range of activities that are designed to increase the effectiveness of local child passenger educators. These activities are directed at enlisting new partners to participate in community-based outreach and education activities, and providing local educators with up-to-date materials and technical assistance. The objective of these activities is to mobilize a large number of community-based advocates who conduct widespread basic child passenger safety awareness efforts.

In addition to these broad awareness activities, communities need a local resource for in-depth consultation concerning specific technical issues that confront consumers, such as vehicle/child safety seat compatibility problems or proper restraint for children with special medical needs. The Patterns for Life program focuses on select partner organizations to develop a network of community-based technical advisors.

It works with a select group of organizations that have the greatest potential for establishing sustainable community entities, providing intensive instruction to a core group of child safety advocates within the organization, and facilitating training sessions among local affiliates throughout the states.

All of the above activities are coordinated, within the agency, to complement one another and avoid redundancy. These programs are designed to maximize the impact of a range of delivery networks, including health and medical organizations, civic and peer groups, and law enforcement. They are coordinated to ensure that youth are receiving the traffic safety message from many sources, all of which are consistent. This repetition of consistent messages, from a range of credible local sources, has the greatest potential for affecting and maintaining the desired behavior changes.

Question. Please bring us up to date on NHTSA's progress in implementing the Patterns for Life program. How many years will this continue? What is NHTSA doing to build the community infrastructures necessary to optimize the placement and use of child safety seats?

Answer. The objective of Patterns for Life is to develop a network of community-based child passenger protection technical advisors. These advisors will complement ongoing child safety seat awareness and distribution efforts by providing a local resource for resolving the technical problems that are encountered by child safety seat users.

Patterns for Life will build this infrastructure by identifying national organizations whose local members are capable of providing this service, providing intense training to a core group within these organizations, and facilitating subsequent widespread training of members. The program will also include development of training and service materials to be utilized by these community technical advisors.

Patterns for Life is designed as a five year program. During fiscal years 1996 and 1997, the program is focusing on the development of training materials and on building the internal training capabilities of selected organizations. During the remaining years, emphasis will shift to delivering these resources to the community-level constituents of these organizations and to providing post-training follow-up and support. Training delivery will be conducted through state and regional workshops.

ENFORCEMENT AND EMERGENCY SERVICES

POLICE TRAFFIC SERVICES

Question. Have States and local governments requested assistance from NHTSA in improving the setting of speed limits or increasing compliance with speed restrictions?

Answer. Yes. NHTSA has received numerous inquiries from State legislatures regarding data on speed and speed limits. The requests also deal with changes made in surrounding states, as well as changes throughout the nation. NHTSA and FHWA have also received requests from State departments of transportation regarding information on proper methodology to set speed limits, in addition to the use of the 85th percentile method generally employed by the engineering community. The law enforcement community has also requested assistance in enforcement techniques and new technology for enforcement of speed limits.

Question. How is NHTSA promoting the increased use of advanced traffic enforcement technology?

Answer. In cooperation with the National Institute of Standards and Technology (NIST) NHTSA has published model minimum specification for light detection and ranging (LIDAR) devices. The devices use light rather than radio frequency to determine speeds and are more accurate than traditional RADAR, as well as more difficult for motorists to detect.

In conjunction with NIST and the International Association of Chiefs of Police (IACP), NHTSA has established independent testing laboratories to ensure the accuracy and reliability of the devices.

Model minimum specifications for automated speed enforcement (ASE) devices have been developed by NHTSA and NIST and are currently undergoing final peer review. NHTSA is developing model modular curricula for use with speed enforcement devices, including LIDAR and ASE.

NHTSA is also working with the States to complete new accident reconstruction technology that will improve both accuracy and the time required to completely reconstruct serious crashes.

The Small Business Innovation Research (SBIR) program provided NHTSA the opportunity to develop a prototype device using magnetic stripe and bar code readers for law enforcement. The device will read the information contained on magnetic strip drivers licenses, bar coded vehicle identification numbers and bar coded license plate information. It will then automatically and accurately propagate data fields on the proper form such as a citation, incident report or accident report. At the same time, the device will automatically use radio transmissions to check the status of the driver and vehicle, e.g., wanted criminal, driving under suspension, stolen car, etc.

NHTSA is also collaborating with FHWA on several projects, including variable speed enforcement technology, automated red light running enforcement, and the development of the advanced traffic enforcement vehicle.

Finally, NHTSA is a partner in the Intelligent Vehicle System (ITS) program, which has great potential for increased use of advanced traffic enforcement technology.

EMERGENCY MEDICAL SERVICES

Question. What are the strategic steps necessary to implement the future EMS Agenda? Who are the key players?

Answer. There are two strategic steps to implement the EMS Agenda for the Future document. The first is to "roll-out" the actual document to the EMS community and the second is to develop a plan for implementing the recommendations in the Agenda document.

The EMS Agenda for the Future document is currently being finalized for printing and it is anticipated that distribution to the EMS community will take place in late July. It is key that the members of the steering committee, participants at the National EMS Agenda for the Future Conference, and peer reviewers take the opportunity to roll-out the document to other members of the national EMS organizations that they represent as well as their EMS/medical colleagues at the state, regional, and local level. A uniform slide presentation is also being developed for use by the steering committee in presentations to their national organizations' annual meetings this fall.

A national Implementation Team will oversee the Agenda's implementation. This team will be comprised of senior officials representing a number of specialties including: managed care; fire service; ambulance industry; academic medical institution; consumer group; physicians; emergency medical technicians; state EMS office; elected official; EMS training/education; economist; and communications. This Implementation Team will convene several times over the next ten months to develop a strategic plan and define roles for implementing the EMS Agenda for the Future. Representatives of Federal agencies involved in EMS programs will also participate in these meetings.

The implementation Team's activities are funded by a grant with the National Association of EMS Physicians and National Association of State EMS Directors.

Question. What are the problems facing EMS systems in this country and how does NHTSA plan to address these?

Answer. From reviewing the results of 40 statewide EMS technical assessments, the major problems facing EMS systems are that many lack: 1) a system for collecting and evaluating data; 2) a system of medical oversight for all prehospital providers; 3) statewide quality assurance programs to evaluate patient care; and 4) established minimum standards for dispatch centers.

Based on these 40 statewide EMS technical assessments, it is known that 90 percent of the states did not have a system for collecting and analyzing data; 90 percent did not have a comprehensive system of medical oversight for all prehospital providers; 85 percent did not have statewide quality assurance programs to evaluate patient care; and 85 percent did not have minimum standards for dispatch centers.

To assist states with their major problems in EMS systems, NHTSA developed a uniform prehospital EMS data element set with definitions and is currently completing a one-day data workshop on EMS data that will incorporate this data set, for use by states. A core group of instructors will be trained to implement this workshop to interested states over the next several years. NHTSA will initiate a project to develop guidelines for medical directors involved in providing oversight to prehospital emergency medical services. NHTSA is also developing a quality improvement system model that will be available in FY 1997 for state use. NHTSA has just completed a new Emergency Medical Dispatch National Standard Curriculum to use in establishing minimum standards for EMS dispatching.

Question. Does NHTSA anticipate funding from other Federal agencies in FY 1997?
Answer. At this time, NHTSA does not anticipate funding from other Federal agencies in FY 1997. However, NHTSA does have an Interagency Agreement with the Health Resources and Services Administration (HRSA), HHS, related to emergency medical services issues. This agreement allows HRSA to financially support NHTSA programs that focus on pediatric issues. In the past, HRSA has supported such programs as the revision of national standard curricula, "Make the Right Call" national campaign, injury prevention activities, and EMS Agenda for the Future. HRSA is not able to commit any financial resources until they have received their appropriation. The interagency agreement will be in effect through FY 1997, therefore providing the mechanism to allow HRSA to continue to support NHTSA EMS programs, if funds allow. HHS is the only Federal department providing financial support to our programs.

Question. What evaluations, if any, have been done on EMS this past year? What were the results?
Answer. NHTSA has not undertaken any program evaluations in emergency medical services. NHTSA has facilitated assessments of state EMS programs as a tool to assist states in determining the effectiveness of their emergency medical services. To date, 48 EMS programs have been reviewed in states, territories, the National Park Service and the Indian Health Service. Upon request from a state, NHTSA facilitates the assessment by drawing together a team of national experts from states other than the one being evaluated. The teams conducting these statewide EMS assessments have found deficiencies in EMS programs in several critical areas, including: lack of comprehensive enabling legislation, lack of clear management structure, insufficient staffing and funding for EMS, lack of standards for medical direction, deficiencies in communication systems, and lack of a system for collecting and evaluating data.

Question. What are the EMS research needs?

Answer. Among the most pressing national research needs currently in EMS is the lack of tools to support and facilitate EMS outcomes research and evaluation. Since 1973 NHTSA has advocated prehospital advanced medical intervention in the treatment of injury victims. However, to date the effectiveness of these specific interventions has never been determined. In time of diminishing resources it is essential to know which interventions provide the most patient benefit. NHTSA is supporting a project that will establish the tools and a strategic plan for conducting evaluations of out-of-hospital care. It is scheduled to begin in late FY 1996 and will conclude in FY 1999.

Question. Please discuss the planned rural demonstration specified on page HS-56.

Answer. To date NHTSA has supported three rural research studies (Montana, Michigan, and North Carolina) that sought to determine why the fatality rate from motor vehicle trauma is higher in rural portions of America than in urban areas. These projects identified errors or omissions in rural emergency care that were contributing to the higher death rate from injury in those areas. A new three-year project will be initiated in FY 1996 that will implement remedies in a rural state aimed at correcting the deficiencies found in the earlier studies. The project will then will evaluate the rate of preventable mortality once the remedies have been in place for one year, to learn if improvements in the fatality rate were obtained.

HIGHWAY TRAFFIC SAFETY GRANTS

NATIONAL DRIVER REGISTER

Question. What is the status of NHTSA's review of state driver licensing systems?

Answer. NHTSA has completed the first phase of the study, a review of the national driver licensing information systems. They are: the National Driver Register (NDR); the Commercial Driver License Information System (CDLIS); and Driver License Reciprocity (DLR). The NDR and CDLIS are required by and operated by NHTSA and the Federal Highway Administration (FHWA). DLR is a voluntary program sponsored by the American Association of Motor Vehicle Administrators (AAMVA). The report prepared from this review describes the strengths and weaknesses of each system. It concludes that all interested parties (the states, AAMVA, NHTSA, and FHWA) recommend a system with a single license and single record for each driver. The AAMVA member jurisdictions recently adopted policies supporting the implementation of an all driver pointer system and the concept of "one license-one record" for each driver.

NHTSA is currently working with AAMVA and FHWA on the second, and final, phase of the review which will develop a strategy to achieve this goal. As part of the strategy development some of the items that are being considered include: the legislation necessary to implement such a system; the cost of such a system; possible funding sources to support the system; and processes to uniquely identify an individual. The scheduled date for completion of the study is July 1997.

Question. How will the results of this review guide the management of the National Driver Register?

Answer. The agency does not expect any guidelines for managing the NDR to come out of the report. The first phase report affirmed the recommendations that came out of NHTSA's July 1993 report to Congress. These recommendations are that the NDR's computer timeshare and help desk functions could be transferred to a non-Federal government entity.

If the report provides management recommendations NHTSA would consider them and act on them as appropriate. Also any suggestions for improvements to the information system would be considered.

Question. What is the status of the PDPS? What are you doing to encourage all states to use this system?

Answer. As of June 10, 1996, 41 states have converted to the PDPS. Most states will convert by July 1996. Oregon, Arizona, Pennsylvania, and the District of Columbia will not. These states have committed to convert to the PDPS but have encountered delays in the process. The reasons for the delays differ for each state. They include staff and budget shortages; legislatively mandated re-direction of resources; and the initial delay caused by problems the NDR had completing system changes.

NHTSA will continue to provide assistance to the states through our "Help Desk". All remaining states are eager to convert to the PDPS. They will do so as soon as their staff and funding resources and other priorities permit. All states should be participating in the PDPS by December 31, 1996.

The PDPS is working quite well, and as a result the states are using it in record numbers. For example, when compared to 1994 figures, the number of interactive inquiries by the states in 1995 increased 90% to 20.1 million; and the total number of inquiries increased 23% to 30.6 million. This increase in interactive inquiries indicates that the speed and accuracy of the system have been accepted by the states. The increase in the total number of inquiries indicates that more states are checking the NDR for license renewals as well as non-minimum age original issuance licenses.

EVALUATION INITIATIVE FOR STATE AND COMMUNITY PROGRAMS

Question. Hasn't NHTSA's past practice been to fund technical assistance to the States out of a small portion of Section 403 monies? Why is a new initative needed at this time?

Answer. The Agency's past practice has been to fund technical assistance to the States out of a small portion of Section 403 monies. However, state needs for evaluation have changed. With the new management process for the 402 program, evaluation is even more critical. The National Assiociation of Governors Highway Safety Representatives has stated that the single most important service the NHTSA Regional Offices could provide is technical assistance in the area of evaluation and data analysis. This new budget initiative would provide the capability in the area of evaluation for each Regional Office to provide technical assistance to the states to assist them in designing performance measures for their Section 402 benchmark reports, to help them prepare an evaluation program for their Highway Safety Plan, to work with them on evaluating their projects, and any other evaluation services they might need.

Question. Could this initiative be funded from the Section 402 administrative takedown?

Answer. The Section 402 administrative takedown is a reimbursement to the Operations and Research account for the costs incurred in administering the grant program. NHTSA's request for Section 402 grant administration funds is based on the salaries and benefits, travel and operating expenses required to administer the Section 402 program and does not include funds to provide technical assistance to the States. To fund technical assistance to the States from the administrative takedown would limit NHTSA's ability to fund the costs of administering the Section 402 grant program.

RAIL-HIGHWAY SAFETY INCENTIVE GRANT PROGRAM

Question. Are the grants intended to be one time grant~~s~~ or is multi-year funding anticipated?

Answer. It is a one time, research-oriented competitive grant program. Communities would be given up to three years to complete their activity.

Question. How many grants does NHTSA anticipate it will take to establish effective strategies?

Answer. The Rail-Highway Crossing Safety Incentive Grant Program Team anticipates awarding not less than 10 nor more than 50 grants. The program would likely not be viable with a sampling of less than 10 communities. Selected sites need to be composed of communities with mixed profiles and diverse enough locations and populations to make the resulting products appropriate for national use.

Question. FRA has several rail-highway crossing initiatives. What actions has NHTSA taken to ensure that this program does not duplicate or overlap other initiatives?

Answer. The DOT multi-modal Rail-Highway Crossing Safety Incentive Grant Program Team is composed of representatives from FRA, FTA, FHWA and NHTSA. The agencies are working closely together on every phase of this program and bring different knowledge and perspectives to the project. All four agencies are making a concerted effort not to duplicate or overlap initiatives from any other agency, political subdivision, or private sector entity.

Question. Will regional projects be emphasized?
Answer. It is anticipated that the grants will be awarded to an intentional geographic, as well as demographic, mix of communities. Also, "community" will be self-defined by the applicant, which allows a wide range of political subdivisions to participate.

Question. What criteria will be used for project selection?
Answer. The DOT multi-modal Rail-Highway Crossing Safety Incentive Grant Program Team drafted a grant application that seeks to identify: the community's profile (including such facts as traffic patterns, special needs populations, and the availability of print and electronic media outlets); the community's goals and objectives, both quantitative and qualitative; a description of the rail-highway crossing and rail trespass problems (suggested data sources are listed); a description of the community organization, as well as the individual who would act as the site coordinator, that would take the lead on the community grant; letters of commitment from partners within the community (law enforcement, emergency services, local businesses, etc.) that intend to participate; a list of possible funding and in-kind resources; suggested program activities; ability and intention to evaluate the grant's activities; willingness to participated in a scientific evaluation if selected; a detailed proposed budget; and the potential for continuing the program once the grant period is completed.

Question. How will FHWA, FRA, and the National Association of Governors Highway Safety Representatives be involved?
Answer. The DOT multi-modal Rail-Highway Crossing Safety Incentive Grant Program Team is composed of members from FHWA, FRA, FTA and NHTSA. NHTSA was selected as the DOT agency to serve as the funding host agency, although the project is truly a multi-modal initiative and not NHTSA's project alone. All work on this effort is done in concert, with equal involvement from the four agencies. NHTSA was selected by the team as the grant lead because the NHTSA has the Section 403 funding mechanism and has extensive successful experience at community-based grants. The National Association of Governors' Highway Safety Representatives (NAGHSR) will be involved in promoting the grant program to the states as well as assisting in marketing the products that will result from the program. Representatives from NAGHSR will be asked to participate in various stages of the

program to provide the viewpoint of the state highway safety offices. Other organizations, such as Operation Lifesaver, Inc., will also be asked to assist in the multi-partnered effort.

Question. How will this program be administered? Will States or communities receive the funds? Will States or communities administer this program?

Answer. The Rail-Highway Crossing Safety Incentive Grant Program is open to any entity (e.g., state, community, MPO, transit authority, law enforcement agency, railroad, Community Traffic Safety Program, university, hospital) interested in taking the lead for the community's program. The funding will go to the applicant. A state would administer a program if the state applied; a community will administer the program if it is the community that applies and takes the lead. Technical assistance will be available to the community from the four DOT modal administrations. The state agencies and/or regional offices of the corresponding DOT agencies will also be asked to participate.

Question. Could this program be more closely coupled with either the Section 403 or Section 402 Safe Communities initiatives?

Answer. This is not a NHTSA program alone. Because it is a DOT multi-modal initiative, all four participating agencies are involved in the management of the project. The project request is in NHTSA's budget request because NHTSA was selected as the lead agency for the budget submission by the DOT team. This project does not fall under the guidelines for Sections 402 or 403, although the practices of those programs are intertwined with this initiative.

Question. How was the figure of $3,000,000 arrived at (HS-63)?

Answer. The DOT multi-modal Rail-Highway Crossing Safety Incentive Grant Program Team calculated the costs based on the past experiences of the four agencies. It is very expensive to do scientific evaluation, which greatly boosts the dollar amount for this program. However, it is essential to have evaluated projects in order to determine the most cost-effective best practices for replication.

Question. What could be done with $300,000 of funding?

Answer. Funding at $300,000 would be inadequate. It would not be possible to execute enough programming for national replication and certainly not enough funding to conduct the needed evaluation components.

HIGHWAY SAFETY RESEARCH

PlANNING, CONDUCTING, AND MONITORING RESEARCH

National Highway Traffic Safety Administration's (NHTSA's) research activities are focused on two safety issues: vehicles and human behavior. NHTSA has two groups which conduct research on these issues: the Office of Research and Development and the Office of Traffic Safety Programs. NHTSA's Office of Research and Development has a large vehicle safety research program directed to reducing injury severity by focusing on accident data and biomechanics. They also collect and analyze data to help identify vehicle safety needs, injury frequency, and injury severity. NHTSA's Office of Traffic Safety Programs conducts research which focuses on how to stop crashes by influencing human behavior, such as lighting, visibility, equipment, and drowsiness.

Question: How do these offices coordinate their research activities? To what degree does NHTSA coordinate with other agencies within DOT? What have been the results of such coordination?

Answer. Research plans are reviewed well in advance by each office as part of routine coordination. The Research and Development (RD) Office conducts research in crash avoidance and in the Intelligent Transportation Systems (ITS) areas. Traffic Safety Programs (TSP) conducts research in the behavioral areas of crash avoidance while RD concentrates on the vehicle areas (such as anti-lock braking systems). Research in the two offices is not only coordinated, but in many instances, done cooperatively. An example is TSP's research on drowsy driving using RD's instrumented DASCAR system.

The Federal Highway Administration (FHWA) and NHTSA share responsibilities in the areas of bicycle safety and accommodation. FHWA is involved in pedestrian and bicycle accommodation [infrastructure] and in developing engineering solutions for bicycle safety problems. NHTSA is responsible for education, enforcement and legislative approaches for reducing these kinds of crashes. Coordination between the NHTSA and FHWA is extensive, and includes joint funding of research and program developmental efforts as well as collaboration in planning. Joint activities include the following:

- DOT's Secretarial Initiative for Pedestrian and Bicycle Safety, a new national effort to promote walking and bicycling as safe, efficient, and healthy ways to travel.
- Development of the community-based "Walk Alert" safety program.
- A training course dealing with pedestrian and bicycle safety and accommodation was developed.

In addition, staff from NHTSA, FHWA and Federal Transit Administration meet approximately once a month to keep each other informed about research and program activities and to address issues of mutual concern.

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In the vehicle area, the Office of Crashworthiness Research conducts studies on occupant restraint systems including safety belts, air bags, and child restraints. The Office of Occupant Protection works to increase and improve the proper usage of these various restraint systems. For example, both research offices are working together on air bag aggressivity issues. Restraint research is underway to make air bags less aggressive and to develop "smart" air bags, while every effort is being made to increase the usage of belts by drivers and front seat passengers, and to stop usage of rear facing infant seats in the front seats.

The Highway Traffic Injury Studies in our Biomechanics research program are special efforts to engage the engineers with the medical and emergency medical service (EMS) providers in improving the prevention of crashes, as well as the acute care and rehabilitation of the crash victims. These special multidisciplinary crash investigations involve regular presentations and discussions among the biomechanics specialists in the Office of Crashworthiness Research and the EMS specialists in the Office of Enforcement and Emergency Services.

With the recent establishment of the National Transportation Biomechanics Research Center (NTBRC), this close coordination within NHTSA is improving and widening to other modes and to the current and growing list of partners of the NTBRC.

NHTSA also coordinates research with the Bureau of Motor Carrier Safety in FHWA, particularly in the areas of heavy vehicles and drowsy driving research. All of DOT's modes have recently developed a research plan for older operators, as another example.

Coordination such as described above eliminates duplication and makes good use of all resources. Research is conducted more efficiently when it is coordinated and the results are more useful to all DOT modes.

Question. Describe NHTSA's overall strategic plan for research.

Answer. NHTSA's highway safety research plan from the Traffic Safety Programs (TSP) office involves the study of people's attitudes, behaviors, and failures (in terms of crashes). The approach is to identify from data analyses the most important behaviors that contribute to traffic crashes (e.g. impaired driving, speeding, lack of safety belt use), develop programs to change these behaviors, demonstrate the programs in the real world, and evaluate the effectiveness of the programs. Surveys, countermeasure testing, before and after (the countermeasure) impact analyses, case/control studies and various other methods are used when conducting research. The areas of research in the plan include alcohol and drug impaired driving, occupant protection, speed and aggressive driving, pedestrian and bicyclist safety, young and older drivers, fatigued and drowsy driving, injury control studies, social marketing, and emergency medical services research. NHTSA will continue to develop focused research projects, taking into account public comments and input from other safety partners.

NHTSA's other research plans include improving data collection and analysis to better identify and understand motor vehicle and highway safety problems. In the Crash Avoidance area, programs such as the Intelligent Transportation System and the National Advanced Driving Simulator are aimed at reducing the number and severity of road collisions. In the Crashworthiness research area particular emphasis is currently being placed on air bag aggressivity, international harmonization of research, and the establishment of the National Biomechanics Transportation Research Center.

Question. How many staff in each office are involved in conducting research? Monitoring research?

Answer. In Traffic Safety Programs, the Office of Program Development and Evaluation is responsible for the bulk of highway safety research. That office has a staff of 17 with 15 of those members monitoring research. NHTSA's Research and Development has a staff of 105, with 95 monitoring research. None of the staff actually conducts the research. That is accomplished via contracts, cooperative agreements and grants.

Question. How many projects are currently in progress? How many of these projects are being conducted by outside contractors? What are some of the advantages and disadvantages of using outside contractors?

Answer. In Traffic Safety Programs, there are currently 48 highway safety research projects in progress using FY 1996 funding. There are at least 10 other projects that used previous fiscal year funding that are almost completed. In the office of Research and Development, there are 166 projects currently underway. Virtually all of the research is conducted by outside contractors. A few projects are conducted via inter-governmental agreements with government researchers conducting the studies. For example, NHTSA has an agreement with the National Institute on Drug Abuse (NIDA) in the Department of Health and Human Services (DHHS) to conduct research on the drug evaluation and classification (DEC) procedures.

A major advantage of using outside contractors is being able to use the specific expertise and resources of that contractor to accomplish the research objective. NHTSA's research staff could not possibly have all the expertise, experience or resources necessary to conduct most of the research. Contracting allows NHTSA to use that expertise on an as needed basis. The disadvantages of outside contractors are some reduction in control and the overhead costs associated with contracting. But in the long run, it is more cost efficient to contract than to maintain a staff with expertise in all the areas required by NHTSA's research program.

Question. What technical skills do the staff in each office require? Is NHTSA able to attract and retain staff with the requisite technical expertise?

Answer. In highway safety research, the technical skills required include psychology, sociology, management, statistics, epidemiology, and the public health sciences. The technical skills of the staff in the Office of Research and Development (RD) include engineering, the biomedical sciences and statistics. NHTSA is fortunate in that the research staff has a good mix of the skills and expertise necessary to design, monitor, review and disseminate the results of the research. However, it difficult to retain good staff because NHTSA has an aging staff and many are retiring. It is difficult to hire junior staff because the competition for jobs outside the government is greater than ever before. It is equally difficult to attract good staff because of the reality of government downsizing and the perceived lack of job security.

Question. Are research projects evaluated to determine whether they've met their objectives? If so, who conducts the evaluation?

Answer. Research projects in NHTSA are evaluated, not just in terms of whether they have met their objectives, but in many instances whether the research discovered something useful that can change behavior, improve vehicle crashworthiness or crash avoidance, or otherwise reduce crashes and injuries. Evaluation is a key component of all of NHTSA's safety research. In some instances, the contractor conducts the evaluations; in other instances, NHTSA staff determines whether the research met the objectives.

ALCOHOL AND DRUGS

Question. What is the status of NHTSA's research to improve enforcement of drug impaired driving in general, and the Drug Evaluation and Classification (DEC) program in particular?

Answer. Research continues to further define the nature and scope of the drug impaired driving problem and to improve the DEC program. In Rochester, New York, data are being collected to determine the use of drugs by injured drivers. A nationally representative survey of drug use and driving will develop information on specific characteristics of people and situations associated with drug impaired driving.

A joint NHTSA/NIDA laboratory study to validate and improve the DEC examination procedures is nearing completion. Results to date suggest that substantial improvement of the accuracy of drug impairment diagnoses will be achieved. As a result of previous research which suggested that DEC officer interview procedures extract important evidence from suspected drugged drivers, a study is underway to improve and standardize the interview protocol. Research is also under way to identify the strengths and weaknesses of the DEC program in different enforcement contexts, and to determine the relative importance of the various types of information available to DEC officers in those different contexts.

This fall NHTSA, with the IACP, will convene a panel of experts on the DEC Program to discuss the results of these three research activities and determine whether and how to improve DEC procedures with appropriate modification of DEC training. Also, current research is determining the accuracy of relatively inexpensive drug screening kits that could be used by both DEC and non-DEC officers.

Question. What specific advances or benefits have resulted from NHTSA's research on DEC during the last two years? What specific changes in the DEC protocol have resulted from this research?

Answer. Recent research on the DEC program has examined the DEC field certification training procedure and the impact of the program on adjudication and enforcement. This research has contributed to improvements in the training procedures and certification requirements. For example, field certification of the Drug Recognition Experts (DREs) originally required trainees to participate in 15 examinations involving four different drug categories. NHTSA research showed that 12 examinations involving three drug categories were sufficient.

In addition, improvements to the site selection, implementation procedures and program management have been made. These include improvements to the matrix of signs and symptoms of different drug categories to stress more reliable indicators, and the development of an 8 hour training block on recognizing symptoms of possible drug impairment for patrol officers.

Three current studies that build upon this recent research will lead to further improvements in the DEC program. This fall, NHTSA and the International Association of Chiefs of Police (IACP), will convene a panel of experts on the DEC Program to discuss the results of NHTSA's research activities and determine whether and how to improve DEC procedures (with corresponding modification to DEC training, as appropriate).

Question. What research is NHTSA conducting in the area of new technology, especially in the detection of alcohol and drugs in drivers?

Answer. Our behavioral research program is examining a number of new technologies to determine their general utility and potential impact on specific problem behaviors. New technology in the detection of alcohol and drug use in drivers is being examined in several studies. NHTSA is currently assessing the feasibility of a laser-alcohol detection device that would allow enforcement personnel to detect alcohol in the cabin of a vehicle from outside the vehicle. For drivers approaching and stopping at sobriety checkpoints, we are studying the feasibility of using roadside sensors as part of a system that can detect driving behavior (weaving, braking, etc.) associated with alcohol impairment.

The use of in-vehicle video technology to aid in the identification of alcohol-impaired drivers will be studied in FY 1997. We are currently testing the accuracy and utility of new non-invasive chemical drug-screening devices, suitable for quick administration and rapid drug identification at police stations. These devices, if accurate, may play a significant role in our programs to curb drug-impaired driving.

We are studying the feasibility of applying new technologies to the problem of preventing drivers convicted of DWI from continuing to drive without a valid drivers license.

Finally, the application of recent advances in driving simulator technology to the driver education area will be studied in FY 1997. The objective will be to determine how this technology can be used in the two-phase driver education curriculum being developed for use with the new graduated licensing program.

OLDER DRIVER RESEARCH

Question. What is NHTSA doing to improve the safe mobility of older drivers? How does this relate to the GM settlement?

Answer. NHTSA's primary program objectives focus on ensuring the safety of older drivers and the general public. To that end, we are developing materials to aid older drivers in determining the circumstances under which they may safely continue to drive. In contrast, the General Motors efforts will focus directly on methods to extend the driving period, including developing diagnostic and remedial procedures, such as vehicle modifications, training options, etc.

Recognizing that these drivers must eventually stop driving, however, we have attempted to involve other federal agencies in ensuring the mobility of former drivers. In FY 1995, NHTSA established an interagency agreement with the DHHS Committee on Community Transportation to investigate the social and mobility consequences of stopping driving. This Committee brings together several agencies, including DHHS's Administration on Aging and DOT's Federal Transit Administration. We plan to provide additional seed money to the committee in the future to study methods of ensuring the mobility of former drivers, especially those who live in rural America, many of whom will not have adequate transportation after they stop driving. We also provided some financial support to a Federal Transit Administration study of the feasibility of a private-sector effort to provide mobility to older persons.

Question. Wasn't NHTSA planning to start work on the demonstration of new approaches in the licensing of older drivers during FY 1997? Is the current research program behind schedule? When will demonstrations of improved screening and evaluation start?

Answer. NHTSA's 1993 revision of its Traffic Safety Plan for Older Persons did call for the initiation of these demonstrations in FY 1997. Several of the "foundation" projects have been were slowed, thus delaying the start of materials development efforts until FY 1996. The beginning of the licensing demonstration is now projected for FY 1988.

Question. Please break down in detail, on a project by project basis, each of the components of NHTSA's older driver program for FY 1995, FY 1996, and Proposed for FY 1997, indicating funding amounts, purpose and tentative results.

Answer. The following list provides the requested details with one exception: NHTSA is not able to provide tentative results, since these projects are still underway or have not begun;

Project: Improving self- and institutional-regulation of driving by older persons
Amount: FY 1995: $161,000
Purpose: Develop approaches and materials to assist older drivers make appropriate decisions about reducing or stopping driving; identify categories of social service or other service providers who may provide consultation regarding driving decisions; assess willingness and ability of these groups to provide these services

Project: Family members and friends regulating or reporting problem older drivers to DMVs
Amount: FY 1995: $109,000
Purpose: Identify reasons why friends and family members do not regulate or report problem older drivers to DMVs; determine remedies to overcome these problems.

Project: Determine mobility consequences of stopping driving
Amount: FY 1995: $50,000
Purpose: Encourage DHHS to study older former drivers; document the consequences of stopping driving, either voluntarily or by losing a license; identify remedial procedures to reduce or eliminate negative consequences; determine how consideration of where an individual lives and availability of alternative transportation should temper decisions to restrict or deny a driver license.

Project: Develop improved methods for negotiating intersections by older drivers
Amount: FY 1995: $47,000

Purpose: Identify how older drivers with different abilities negotiate familiar and unfamiliar intersections; specify licensing and training implications; identify potential modifications to vehicles and highways to increase intersection safety.

Project: Assess private-sector mobility alternatives for older persons.
Amount: FY 1995: $35,000
Purpose: Provide assistance to the Federal Transit Administration to encourage continued interest in protecting mobility of former drivers.

Project: Improve safe mobility of older persons
Amount: FY 1996: $100,000
Purpose: Provide additional support to congressionally-mandated FHWA-sponsored Pennsylvania State University project demonstrating ways to extend the period of safe driving of older persons.

Project: Analyze Utah medical standards data
Amount: FY 1996: $70,000
Purpose: Examine database maintained by the state of Utah to assist revision of medical guidelines used by state drivers licensing agencies.

Project: Develop methods and materials for assessing performance of older drivers
Amount: FY 1996: $25,000
Purpose: Provide additional funds to complete a project developing valid and practical methods to enable licensing agencies to evaluate performance of older drivers.

Project: Identify role of health-care community in dealing with older drivers
Amount: FY 1996: $100,000 FY 1997: $98,000
Purpose: Determine feasibility of and methods for using physicians, optometrists, pharmacists, occupational therapists, etc., to detect potential problem drivers and refer them to independent or state agencies for further evaluation.

Project: Develop model screening and evaluation procedures for functionally limited drivers
Amount: FY 1996: $95,000 FY 1997: $100,000
Purpose: Consider wide array of current screening and evaluation approaches and adopt, modify, or develop procedures suitable for implementation in a driver licensing agency; develop plan for field test of the system.

Project: Validate statistical models of relationships between functional limitations due to aging and crash involvement or driving cessation
Amount: FY 1996: $80,000 FY 1997: $20,000

Purpose: To ensure that models built from one data set are valid when used with date from other sources.

Project: Develop improved methods for negotiating intersections by older drivers
Amount: FY 1997: $96,000
Purpose: Use results of previous research to assist older drivers deal with moving through or turning at intersections.

Project: Develop driving-decision guidelines for older drivers
Amount: FY 1997: $80,000
Purpose: Produce guidelines to permit older drivers and their friends and family members to determine when and where it would be safe for them to drive, and when and where to seek more thorough assessments of driving abilities.

Project: Ensure mobility of former drivers
Amount: FY 1997: $50,000
Purpose: Follow up project with DHHS and Federal Transit Administration to investigate the feasibility of providing acceptable transportation alternatives to older persons after they or their spouse stop driving.

Question. What new publications have resulted form NHTSA's older driver program during the last year? What are the NTIS numbers of these publications?

Answer. The following publications and presentations have resulted from NHTSA's research program: Eberhard, J.W. Safe mobility for senior citizens. "IATSS Research", 20 (in press, 1996); Foley, D.J., Wallace, R.B., and Eberhard, J.W. Risk factors for motor vehicle crashes among older drivers in a rural community. "Journal of the American Geriatric Society", 43:pp 776-781 (1995); and Hu, P.S., Trumble, D., Foley, D.J., and Eberhard, J.W. Vehicle crashes among older drivers. Presented at the "Transportation Research Board Annual Meeting", Washington, DC (1996).

SPEED AND UNSAFE DRIVING

Question. Has NHTSA requested funds in FY 1997 to help pay for ongoing TRB work regarding speed limits?

Answer. No. The need for a study on speed limits was identified only after enactment of the National Highway System Designation Act of 1995, which abolished the national maximum speed limit and allows states to set their own speed limits. This occurred after NHTSA's FY 1997 Budget request had been submitted. NHTSA and FHWA are planning a study, to be conducted by the Transportation Research Board, that will provide up-to-date guidance to states on methods and criteria for setting speed limits. The study is budgeted at $500,000, contributed equally by NHTSA and FHWA in FY 1997. The study is essential to assist states as they search for appropriate methods to set speed limits now that national criteria no longer exist. Unless an additional $250,000 is provided, NHTSA must curtail critical work in some other area.

Question. What new findings have emanated from NHTSA's recent work on speed and unsafe driving? How will this information be used?

Answer. NHTSA's speed and unsafe driving research is designed to determine the types of drivers, situations and circumstances under which speeding and other unsafe driving actions are hazardous so that enforcement efforts can be targeted at those occurrences of speeding and unsafe driving that present the greatest crash risk. The research is designed to improve the efficiency and effectiveness of enforcement efforts.

Two recently completed studies have shown that a vigorous municipal speed enforcement program can substantially reduce the proportion speeding 10 mph or more over the limit, and more importantly can reduce injury crashes. Speed related injury crashes were reduced approximately 20% in Chattanooga, TN and Modesto, California. Another study compared laser (lidar) with radar based speed enforcement and found that radar was more effective as a deterrent to speeding than laser (probably because of its easily detectable signal). However, both were about equally effective for enforcement purposes.

An ongoing study (jointly funded by NHTSA and FHWA) is conducting in-depth crash investigations to determine whether speeding or other unsafe driving behaviors occurred, and if so their role in causing the crash. Another ongoing project will conduct a nationwide survey to acquire data on characteristics of people who speed, situations in which they speed, and general views on speed limits.

DRIVER FATIGUE AND INATTENTION

Question. Please present a detailed chart showing which projects have been funded, their purposes, amounts and participants. Please present a similar chart showing a schedule of anticipated projects. When were these contracts signed? Why has it taken this long to develop this program?

Answer. No projects have been funded as of this date. However, negotiations are near completion and NHTSA expects to have signed agreements and task orders within a matter of weeks. Most of the delay has resulted from the extensive coordination NHTSA has done with the National Center for Sleep Disorders Research, the larger sleep-research community, and fatigue-oriented organizations, without whose support the program's objectives could not be accomplished. The table containing the requested information follows:

Project	Purpose	Amount (approx)	Participant
Analyze role of fatigue, sleep disorders, & inattention (FSDI) in highway crashes	• Describe qualitative characteristics of FSDI crashes • Identify population subgroups most at risk • Identify exacerbating situations and conditions	$130,000	National Center for Sleep Disorders Research
Investigate instances of fatigue-related events in motor-vehicle operation	• Observe drivers during fatigue-related inattention incidents • Establish distinguishing characteristics of fatigue-related, distraction-related, and other types of inattention • Relate fatigue-related inattention to vehicle maneuvers	$70,000	NHTSA DASCAR project
Develop and test educational countermeasures for fatigue-related highway crashes	• Specify target populations • Determine alternative message themes (content) • Establish candidate motivational approaches (e.g., fear, anxiety, family ties) • Establish candidate dissemination strategies	$175,000	Harvard School of Public Health; Injury Control Center
Develop strategy and lay foundation for education and information campaign	• Determine campaign objectives • Choose target audience • Determine appropriate information content • Determine appropriate motivational strategy • Establish appropriate media mix • Prepare and test draft materials • Refine materials	$275,000	Global Exchange, Inc.
Evaluate information and education campaign to combat fatigue-related highway crashes *(development & pretest only)*	• Establish campaign objectives • Determine appropriate outcome measures • Establish appropriate evaluation research design • Develop procedures and protocols • Choose evaluation sites • Collect pre-campaign data	$300,000	Task Order on contract to be awarded in FY 1996

Question. Please specify exactly what role NIH has played in this effort, detailing contacts, funds to be transferred, etc.

Answer. NHTSA staff have had extensive in-person and telephone discussions with the Director of the National Center for Sleep Disorders Research (NCSDR) and staff of the Heart, Lung, and Blood Institute who will be involved in conducting the initial project and providing oversight on all the others. These discussions have centered on focusing the resources in order to reach the project's objectives; identifying and coordinating with potential participants, partners, and stakeholders; and establishing the roles of each of the major players. The NCSDR will convene a panel of specialists to identify the characteristics of fatigue-related crashes, the population subgroups most at risk, and the circumstances that seem to exacerbate fatigue related crashes. From this panel, NCSDR will select a smaller number of specialists to serve as a steering committee for the remaining projects, reviewing project deliverables and assisting with critical decisions. To enable the NCSDR to perform these tasks, including the logistics of travel and communication, NHTSA will transfer approximately $130,000 to NCSDR through an interagency agreement that is currently being negotiated.

Question. What new findings have resulted from research to determine the role of sleep disorders or fatigue as a causal agent in traffic crashes?

Answer. NHTSA's program is not geared to conduct research of this nature. In order to reach the program development objectives, NHTSA is depending on the panel of specialists to be convened by the National Center for Sleep Disorders Research to provide the information upon which the educational campaign will be based.

Question. Was the $1,000,000 allocated in FY 1996 sufficient to support a drowsy driver program? What progress in developing and beginning to implement a public education program will be achieved with the FY 1996 monies (HS-90)?

Answer. The FY 1996 amount is sufficient to support the planned research and development effort, as well as an outcome evaluation program. When the current funds are fully expended, the program will have produced pilot-tested, production-ready materials, including camera-ready artwork for printed materials and storyboards for video presentations. Furthermore, the pre-campaign phase of the evaluation will have been completed, including defining research objectives, establishing the evaluation design, selecting potential implementation and comparison sites, and collection of pre-campaign, baseline data in those sites.

Question. What level of funding is required for dissemination and publication of the results of the fatigue research and associated pubic information campaign?

Answer. Based on NHTSA's experience with similar programs, duplication and national distribution of the finished materials would cost about $200,000.

STATE AND COMMUNITY PROGRAMS EVALUATION

Question. How was the amount of $1,000,000 arrived at? Could effective evaluations using fewer sites be done at less cost (HS-88)?

Answer. The proposed new initiative is to evaluate innovative and promising programs developed and implemented at the state and local level. NHTSA, in cooperation with the National Association of Governor's Highway Safety Representatives (NAGHSR), will convene a panel to review programs nominated by the States and recommend particularly promising approaches for evaluation. NHTSA's current §403 research and development budget is insufficient to fund this program at a level where NHTSA's customers (states and communities) will believe that NHTSA has made a real commitment to evaluate their innovative programs. Assuming an average cost of an evaluation of $100 to $200 thousand, a budget of $1 million would fund 5 to 8 such evaluations. Certainly fewer evaluations will be conducted if fewer funds are made available for this program. The benefits of this program are that the cost effectiveness of the programs evaluated will be determined and documented, and this information will then be available to other states for use in program planning. If funding is reduced then states will have less information about program effectiveness and will be less able to ensure that their scarce resources are used only on programs known to be effective.

Question. What is the relative priority that NHTSA assigns to this initiative compared to other requests for new starts? Can this initiative be funded through the base HSP program?

Answer. NHTSA has always placed a high importance on evaluation, in order to knowing the effectiveness of programs NHTSA develops or advocates. In this new era of increased emphasis on partnership with the States and local communities, NHTSA's role is changing, in part, to one of fostering and supporting community development and ownership of highway safety programs. Most states and communities, while keenly desiring effectiveness data, lack the resources and expertise to conduct scientifically sound evaluations. At meetings across the country NHTSA is hearing pleas for assistance in producing sound evaluation data about program effectiveness. As a result, NHTSA's ability to provide technical assistance to states and local communities in terms of evaluating innovative locally developed and implemented programs takes on a higher priority than ever before.

NHTSA's base highway safety program budget is already stretched thin supporting the many essential agency programs and goals. Providing adequate resources to this important new initiative at the expense of existing programs is simply not feasible. State and local communities look to NHTSA for leadership in providing information about program effectiveness. Thus, this is an opportunity for Congress and NHTSA to clearly indicate the importance it places on obtaining and disseminating information about program effectiveness. This is one of NHTSA's most important new starts.

STATE MOTOR VEHICLE SERVICES

Question. What actions has NHTSA taken to improve the overall quality of State traffic records systems? What actions have States taken in response to the assessments that NHTSA promoted?

Answer. One of the most important actions NHTSA has taken to improve the overall quality of State traffic records systems has been conduct 28 traffic records assessments. Another very important activity to has been to award to 34 States strategic planning grants to improve their traffic records systems. Provision of the grants has renewed State interest in traffic records systems improvement. In addition, NHTSA has the following actions underway: establishing a Technology Clearinghouse that will provide information on the availability of hardware and software technologies that can be used to acquire and analyze traffic records data; developed and pilot testing a training course for traffic safety managers in using traffic records data; developing a crash core data set that includes variables in addition to CADRE; expanded the Traffic Records Forum to be more inclusive of the entire traffic records community; and providing a means via the World Wide Web for direct access of information on the Uniform Vehicle Code. The most important action States have taken is to form statewide traffic records coordinating committees to plan and coordinate traffic records activities at the state and local levels. Formation of coordinating committees was a requirement of States for the strategic grants. Formation of a coordinating committee was also the major recommendation in all traffic records assessments.

Question. Please list the purposes and amounts of the major contracts awarded in the records and licensing area for FY 1995 and FY 1996. What will be the benefits or results of this investment?

Answer. The purposes and amounts of major contracts awarded for FY 1995 and FY 1996 are:

FY 1995

Contract	Purpose	Amount
Traffic Records Review	Review completed assessments; survey data analysis software; develop core crash data set	$98,243
Traffic Records Manager's Course	Develop training course for managers in the use of traffic records data	$75,000
1995 AAMVA MYPLAN	Develop certification for driver examiner program training materials; draft program elements for North American Drivers License Agreement	$50,000
	FY 1996	
Technology Clearinghouse	Provide information on hardware and software used to acquire and analyze traffic records data	$145,000
Training Course Pilot Test	Pilot test of traffic manager's training course	$84,000

Traffic Records Forum	Conduct Traffic Records Meeting that includes international and national participants	$50,000
CADRE Survey	Survey CADRE data elements used by States	$41,585
1996 AAMVA MYPLAN	Promote adoption by States of uniform driver medical screen standards	$50,000
NCUTLO	Provide on-line access via the WWW of Uniform Vehicle Code information	$50,000

These investments will improve NHTSA's technical information and training services to States and will promote more efficient access, analysis and use of traffic records and licensing data.

RESEARCH AND ANALYSIS

Question. Please prepare a table indicating the amount appropriated and the amount actually spent for the different major categories and subcomponents of the R&A program budget for each of the last three fiscal years. Please explain any deviations or reallocation of funds.

Answer. The following table represents the R&A funding for the last three fiscal years at the major categories level:

	FY 1995 Appropriation	FY 1995 $ Obligated	FY 1995 Carryover $	FY 1994 Appropriation	FY 1994 $ Obligated	FY 1994 Carryover $	FY 1993 Appropriation	FY 1993 $ Obligated	FY 1993 Carryover $
MOTOR VEHICLE RESEARCH									
Total, Motor Vehicle Research	22,194	39,887	22,981	20,947	29,940	9,070	27,264	27,343	2,783
NATL' CENTER FOR STATISTICS & ANALYSIS									
Total, National Center for Statistics & Analysis	16,523	15,969	514	17,273	17,452	169	15,500	15,499	
TECHNOLOGY TRANSFER	40	73	65	40	53	15	40	25	
Total, Research and Analysis	38,757	55,929	23,560	38,260	47,445	9,254	42,804	42,867	2,783

Question. Please breakdown in detail the funds requested for operating expenses for Research and Analysis (Page RA-4).

Answer. The FY 1997 operating expenses requested for Research and Analysis is an allocation of the total NHTSA headquarters operating expenses. These costs include, but are not limited to, personnel related expenses (such as training and permanent change of station), printing, communications, computer support, and payments to the Working Capital Fund. The allocation is calculated based on the total headquarters and mission support authorized full-time permanent positions and the total headquarters operating expenses. Prior to the FY 1997 request, NHTSA calculated operating expenses for Research and Analysis using the same methodology. However, the operating costs for the Vehicle Research and Test Center (VRTC) were added to the total headquarters operating expenses calculation for Research and Analysis. In an effort to more accurately reflect the total costs of the Research and Analysis program, the FY 1997 VRTC expenses are included in the program budget.

SAFETY SYSTEMS

Question. Please discuss the safety problems encountered with electric vehicles. What are the solutions to these problems? Will improved regulations be needed? What spending level is planned on this in FY 1997?

Answer. Currently there are no safety problems with electric vehicles (EV's). There are safety issues. The safety issues are electrical isolation and electrolyte spillage into the passenger compartment. The Society of Automotive Engineer has developed a recommended practice which addresses electrical isolation between the chassis and a high voltage system, electrolyte spillage, and intrusion of battery system components or electrolyte into the occupant compartment during crash conditions. The agency plans to evaluate this recommended practice before proceeding with any rulemaking in those areas. If the Society of Automotive Engineers recommended practice is followed by manufacturers, these safety issues should not elevate to safety problems. Should these elevate to problem status, the agency has two recourse that it can follow: recall the vehicles with a safety recall initiated by a defects investigation; and implement a Federal motor vehicle safety standard to address the problem.

The agency is requesting $450,000 which will be used to develop test conditions which determine the efficacy of new industry standards when applied to EV's in the crash test environment and, if indicated, design and implement test procedures supporting rulemaking efforts.

The proposed tasks will: (1) examine existing safety practices involved in the manufacture and testing of batteries and electric propulsion equipment; (2) review safety standards concerning shock levels, battery explosion and exposure limits to hazardous chemicals; (3)

locate and review accident and crash test data; (4) develop an EV crash test model to use to compare EV response to that of a conventional Internal Combustion Engine vehicle; (5) develop a crash test procedure that quantifies exposure to shock or hazardous chemicals; (6) test available vehicles for compliance with existing FMVSS; (7) implement EV specific safety tests.

Question. Please break down in extensive detail the $6,500,000 request for Safety Systems and compare these expenditures, by activities, to the FY 1995 and FY 1996 program.

Answer. The following table provides a comparison of the expenditures, by activities, for the FY 1995 and FY 1996 programs to the proposed funding level for the FY 1997 program.

Activity	FY 1995	FY 1996	FY 1997
Upgrade Frontal Crash Protection	$2,250	$1,810	$1,900
Upgrade Rollover Crash Protection	800	1,000	1,000
Vehicle Aggressiveness and Compatibility	0	500	1,000
Upgrade Side Crash Protection	1,300	1,500	1,500
Upgrade Seat and Restraint systems	700	700	700
Electric/Alternatively Fueled Vehicles	0	400	400
Other Activities (e.g., school bus safety, child restraint systems, etc.)	2,000	0	0
Total	$7,050	$5,910	$6,500

Question. What new research will be performed with the additional $590,000 requested for Safety Systems?

Answer. At the time the FY 1997 budget request was formulated, this increase was requested primarily for the vehicle aggressivity and fleet compatibility research program. However, since that time, the agency has become aware of air bag induced injuries and fatalities resulting from aggressive air bag deployment. This budget increase will now be needed to address this unanticipated safety issue.

Question. Please discuss the progress that has been made on implementing the strategic plan for heavy truck research.

Answer. With the limited funding for heavy truck research in the NHTSA budget and through the ITS research program, NHTSA has made progress in several research areas. These include intelligent stability systems, side/rear-looking and forward-looking collision avoidance warning systems, advanced communication/signaling systems, and drowsy driver detection systems. Additionally, a driver workload assessment protocol to evaluate drivers' ability to process enhanced information available to drivers from collision avoidance warning systems and other advanced technologies has been developed. The next phase of the research activity will focus on system capability, useability, and customer acceptance. Truck occupant protection and aggressivity and compatibility research has been receiving only limited attention because of the lack of sufficient funds to support these programs in the NHTSA budget.

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CRASHWORTHINESS -- BIOMECHANIC

Question. Please break down in detail the $7,450,000 request for Biomechanics Crashworthiness Research. Please prepare in tabular form and compare similar funding in FY 1996. How much is to be allocated to the National Transportation Biomechanics Research Center?

Answer. The table below provides the requested break down of FY 1996 funding and the requested FY 1997 funding. Because the National Transportation Biomechanics Research Center has been created as an organizational entity within NHTSA and not a separate outside institution requiring separate funding, the $3 million of funds requested for the center are planned to be disbursed (as shown in the third column) among the four major research areas that have traditionally encompassed all Biomechanics research activities.

	FY 1996 Totals	FY 1997 Total NTBRC	Distribution of $3million included in (column at left)
	Dollars in Thousands		
Highway Traffic Injury Studies	$900	$1,600	($400)
Impact Injury Studies	1,960	2,600	(1,200)
Human Injury Simulation	1,780	1,450	(600)
Crash Test Dummy Development	900	1,800	(800)
NTBRC	350		
Totals	$5,890	$7,450	($3,000)

This proposed level of funding represents an ambitious research program designed to accelerate the completion of a variety of necessary research objectives. Specifically, if the FY 1997 request is obtained and FY 1998 funds are also provided, we expect the Advanced Frontal 50th Percentile Male Dummy and its computer model equivalent as well as the definition of parameters for Child Airbag Injury Assessment to be completed. This funding would also allow the efforts to begin to develop an Advanced Frontal 5th Percentile Female Dummy, its computer model equivalent, and to develop improved brain injury criteria and instrumentation for its detection by the end of FY 1998.

Question. What progress has been achieved in the area of Human Injury Simulations and Analysis?

Answer. Our cooperative analytical efforts with the U.S. Army to model the skull and brain are proceeding well. These modeling efforts are developing the capability for identifying impact conditions which will result in skull fractures and determining the quantity and quality of padding necessary to eliminate these conditions. The analytical capabilities of our brain model are also being expanded to include the capability to identify the extent and severity of the three most prevalent modes of brain injury observed in automotive crashes. These are subdural hematomas (bleeding between the skull and brain caused by the tearing of small bridging veins), focal injuries (discrete focal areas on the surface and interior of the brain where portions of the brain are physically damaged), and diffuse axonal injuries (segment of the brain volume where physiological function no longer exists).

With current restraint systems, belted occupants do not receive maximum protection from the available air bag restraint. The anatomic thorax model that NHTSA has been developing at the Volpe National Transportation Systems Center has been used to study the benefit of force-limiting belts, alone and in combination with air bags. Improved knowledge of force-limiting belts will enable manufacturers to optimize the design of the belt and air bag to maximize the benefits provided by the complete restraint system.

A new model of the pelvis and leg has been developed in cooperation with the Lawrence Livermore National Laboratory to study injuries to the tibia, femur, knee, and hip. Leg injuries resulting from toe pan intrusion or knee bolster contact will be addressed with this model. Experimental data obtained under the Impact Injury Research Program are being used to validate this model.

Anthropometric software developed by the U.S. Air Force has been incorporated into our finite element modeling software package. This will allow us to create models of occupants of various sizes and ages, from 2 years old to adult.

Question. What is the current state of Crash Test Dummy Development Activities?

Answer. The Advanced Frontal Dummy Development Program met a major scheduled milestone in May 1996, with the delivery and exhibit (at the Fifteenth International Conference on the Enhanced Safety of Vehicles in Melbourne) of two fully, integrated mid-sized male advanced dummy prototypes. These prototypes embody improved injury assessment features in nearly every body region, compared to existing dummy technology.

Following a period of internal "shakedown" test and evaluation, refined advanced dummy prototypes will be leased by NHTSA in January 1997 for evaluation by interested automotive manufacturers and test laboratories worldwide. Participation in this outside test and evaluation effort has been planned with or is expected from the United States Consortium for Automotive Research/Occupant Safety Research Partnership (Big Three consortium), the European Experimental Vehicles Committee, the Japan Automotive Research Institute (JARI) and their sponsor the Japan Automobile Manufacturers Association (JAMA), and the American Occupant Restraints Council (automotive restraint and seating manufacturers). International harmonization of the dummy product remains as a significant goal of the advanced frontal dummy program and is being actively pursued.

Significant effort is also underway to advance the state of the art in dummy-based instrumentation. Advanced techniques for sensing of dynamic thorax deflection are being developed, as are techniques for sensing and resolving loads delivered into the dummy hip joint (which relate to serious hip fractures seen in the field). Also being actively pursued is a technique for dynamic measurement of dummy spinal curvature, which will find application to advanced spinal injury assessment and to assessment of occupant restraint performance.

If the requested FY 1997 funds are obtained, NHTSA's design and evaluation efforts for the Advanced Frontal 50th Percentile Dummy are expected to be completed by the end of FY 1997; and the worldwide independent evaluation of this device can commence. In addition, to facilitate physical and virtual testing, NHTSA will use its FY 1997 funding to complete a computer model of this new dummy for users.

At the requested FY 1997 funding level, we will begin work on a 5th percentile female version of this dummy as well as a companion computer model, to be completed in FY 1998. This small, more sophisticated female dummy will assist in designing less aggressive air bags and more effective safety belt systems.

Question. What biomechanical insights into human tolerance and injury mechanisms have been developed under the Impact Injury Research efforts?

Answer. Utilizing the unique, NHTSA developed chest band when conducting frontal crash simulations, it has been observed that certain three point safety belt systems, because of their stiff design characteristics, produce the same thoracic deformation patterns whether an airbag is present or not. This indicates that these belt systems concentrate the restraint forces along the path of the torso belt and do not avail themselves of the load distributing, injury reducing capabilities that are characteristic of an airbag by itself.

NHTSA's Impact Injury Research efforts have also shown that limiting the force that the upper torso belt can apply to the torso will allow the torso to translate further forward in the vehicle, experience less concentrated forces and localized thoracic deformations from the belt system, and be less injured because of the greater force distribution that the airbag can now provide. This research has also developed, using information from five separate thoracic deflection measurements, an analytical process that can identify whether an airbag/belt system is belt dominant or not and make an accurate assessment of that system's safety potential. This technology is now being incorporated into our advanced frontal crash test dummy to motivate development of optimized airbag/safety belt restraint systems.

Other recent research has shown that, while lower extremity injuries observed in real crashes occur when passenger compartment intrusion occurs, these injuries can occur very early in the crash event when the intrusion velocity is high. Therefore, if one were to design the vehicle to reduce the gross overall intrusion but not eliminate the effects of high initial intrusion velocities, then lower extremity injuries would persist. This research is now developing appropriate biomechanical criteria and instrumentation that can be employed with a crash test dummy to detect when these injury conditions exist. These efforts have also demonstrated that the addition of about an inch of appropriate padding to the surface of a toepan can significantly reduce the injurious conditions of high intrusion velocities.

Question. Have the Highway Traffic Injury Studies provided any new insights into particular automotive injury situations? What are the FY 1997 plans for the Highway Traffic Injury Studies?

Answer. By examining in detail the personal consequences of the various injuries that automotive crash victims in the hospital studies experienced, it has been demonstrated that while lower extremity injuries, i.e., injuries to the foot, ankle, lower leg, knee, thigh, and hip, do not constitute a substantial threat to life, they do represent over half of the total medical costs attributable to automotive crash trauma. This is a result of not only the long recovery times associated with these orthopaedic injuries but to the concomitant severe and permanent disabilities associated with injuries to major load bearing joints that rarely regain or maintain their original functional capabilities. These observations have led to the development and implementation of a major NHTSA Impact Injury Research initiative to understand the circumstances and crash conditions that produce these injuries.

Additional insight gained from the hospital studies highlighted the fact that EMS personnel and physicians should recognize that with the advent of air bags the usual surface abrasions and lacerations that they associate with severe internal injuries may not be present on crash victims. This may lead to ignoring or misdiagnosing the seriousness of occult injuries. This led to the development of the "Lift the air bag & Look for steering wheel damage" crash scene aid that has been widely distributed to trauma services throughout the country.

The hospital studies have also confirmed laboratory observations that two point automatic torso belts, when used without the lap belt, increase the potential for crash victims to sustain liver and other abdominal injuries and led to the agency's continued recommendations that occupants always wear all available restraint systems.

Our FY 1997 plans for the Hospital Center Study Program are to develop and issue a solicitation for competitive procurement that will identify and fund four trauma centers over the next 4 or 5 years. These efforts will be coupled and compatible with a similar effort with three active trauma centers being sponsored by General Motors Corporation. These trauma centers will collect and archive data with one uniform and universal protocol and establish a data network that will synergistically combine the seven centers' inputs into one common data base. The combination of seven active trauma centers providing high quality, multi disciplinary research and evaluation of automotive crashes which will provide the agency good early indications of how new safety system concepts are functioning in the field and allow early corrective measures if needed.

Question. What progress has been made in designing and implementing the National Transportation Biomechanics Center?

Answer. The establishment of the National Transportation Biomechanics Research Center (NTBRC) has been evaluated and is proposed to be feasible and effective based on the following: 1) The Center has been established as an intermodal entity that resides within the organizational structure of NHTSA; 2) the Center is based on NHTSA's successful paradigm of transportation safety biomechanics research and will utilize existing DOT expertise; and 3) establishment of cooperative agreements of research with universities, private contractors, and other Federal agencies under the Center has begun.

NHTSA has undertaken several initiatives to demonstrate the feasibility and effectiveness of establishing a National Transportation Biomechanics Research Center. We are rapidly expanding our analytical capabilities to allow detection of the severity and extent of brain injury which can be experienced during an impact. We have established collaborative efforts with the U.S. Army to pursue common research objectives in head and thoracic injury. We are accelerating our efforts to complete development of our advanced frontal test dummy. We believe that the analytical initiative will demonstrate that the Center has the capabilities to improve and rapidly apply new technologies to safety problems. The cooperative U.S. Army initiative will demonstrate that our biomechanical expertise and capabilities are sought and can be successfully applied to a multitude of intergovernmental safety needs. The new dummy initiative will demonstrate the Center's ability to develop and introduce state-of-the-art technologies.

The pursuit of research and development efforts in Biomechanics is essential for NHTSA's continued success in mitigating and preventing automotive impact injuries. Biomechanical technologies are also applicable to understanding and mitigating the many hazardous impact situations of concern to the other modes within the Department, as well as other agencies throughout the Government. Therefore, the Department's current vision of the National Transportation Biomechanics Research Center consists of establishing an intermodal entity within the organizational structure of NHTSA. The Center would assume the responsibilities of the current NHTSA Biomechanics Division as well as the expanded role of creating partnerships with other DOT and governmental agencies to advance and apply biomechanical knowledge and technologies to their existing injury issues. We will organize the Center's efforts along the successful Biomechanics research paradigm of having engineers and medical professionals conduct detailed field studies to identify and understand the injury process and consequences. The Center will conduct detailed laboratory experimentation to quantify the exact mechanics of the injury process. It will advance the analytical capabilities to characterize and simulate the human structure and injury consequences from impact situations. Based upon the above knowledge, the Center will develop and apply physical and analytical test devices and criteria to evaluate performance of safety systems.

Question. Has any financial participation been obtained from other Federal agencies or from other parts of DOT to contribute towards this center, either commitments in place or planned commitments?

Answer. An announcement of the Center has gone out in a memorandum from the Deputy Secretary of Transportation to the U.S. DOT modal administrations. Discussions are to begin with the modal administrations to identify areas of cooperation in transportation injury biomechanics. Expanded cooperation with the Army Medical Research Command resulted for FY 1996 in the area of head and thoracic injury biomechanics. A program to cooperate with the Department of the Navy to advise on injury biomechanics is also under development. Discussions have also been held with the Department of Justice, the Army, and the Air Force to establish cooperations in mutual areas of interest. These cooperative efforts are expected to enhance understanding of blunt injury to occupants due to air bags, blast injuries to soldiers, and less-than-lethal weapon injury to law enforcement officials.

NHTSA's Associate Administrator for Research and Development has also sent a letter to active academic, industrial, and governmental biomechanical research groups announcing the formation of the Center and its concept and goals. Encouragement to consider collaboration with the Center was offered, and we plan to pursue these additional resources vigorously. We hope that these associations together with the funding request will allow us to accelerate the much needed biomechanical research necessary to advance transportation safety.

Question. What will be the total costs of such a center?

Answer. As previously indicated, the National Transportation Biomechanics Research Center is being established as an intermodal entity which resides within the organizational structure of NHTSA. Its role will be to develop, promote, coordinate, initiate, conduct, and deliver biomechanical research efforts that address the safety needs of the Department as well as other agencies and Departments within the government. The NTBRC will work with nongovernment biomechanics groups as well. The NTBRC will not be a separately funded, outside entity that requires staff and physical plant support. Its staff will consist of NHTSA Biomechanics specialists as well as support from other DOT modes. As such, the cost associated with the Center will be directed solely toward the development and execution of its research objectives. Our current cost projection for the anticipated expansion to be managed by the Center is $7.45 million for FY 1997, and this has been expressed in our budget submittal. This level of funding will allow continued advances on the many research fronts that NHTSA Biomechanics research is pursuing. Specifically, the completion of the Advanced Frontal 50th Percentile Male Dummy and its computer model equivalent as well as the definition of Child Airbag Injury Assessment Parameters are expected to be completed by the end of FY 1997. If the requested FY 1997 funding level is enacted, we will also begin work on a 5th percentile female version of this dummy, a companion computer model, and new brain injury detection dummy instrumentation.

Question. What indications are there that industry will participate in this center? What financial contributions is industry likely to make towards the center? Have any non-Federal contributions been made?

Answer. NHTSA has sent out letters to the industry explaining the concept of the Center. Negotiations are currently ongoing with General Motors to fund cooperative programs in brain injury research. Cost sharing and in-kind contributions are expected from non-Federal institutions, such as private corporations and academic institutions through cooperative research efforts. Although these collaborations may not directly contribute funding to the Center, their pursuit of biomechanical research and development efforts, coordinated with the efforts of the Center, are expected to accelerate research products. This can help accomplish our goal of advancing biomechanical technologies as quickly as possible so that transportation safety can be rapidly improved.

Question. What additional efforts are required to attract contributions to the center from agencies other than NHTSA?

Answer. NHTSA Biomechanics, has in the past, leveraged resources with its partners through cooperative research efforts and sharing of data. This approach has been successful in the past and will be expanded through the Center's organization to enhance the ability to produce research results faster and more cost effectively. As the Center's capabilities are recognized, it is expected that more partners will sign up to conduct immediate mission-related research blended with a component of long term research and development to keep the tools current and effective.

Question. What progress has the biomechanics program made during the last few years in advancing knowledge regarding injury tolerance levels for the abdomen, neck, and legs.

Answer. After NHTSA's hospital studies identified lower extremity injuries as one of the significant components of automotive trauma, research efforts to understand and quantify the various injury mechanisms were initiated. These efforts are addressing foot, ankle, leg, knee, and hip injuries. To date, these efforts have yielded a better understanding of the mechanical conditions that cause foot, ankle, and lower leg fractures. We have been able to associate and quantify the level of force measured along the length of the leg with the probability of causing a fracture in the foot and/or ankle. Additional efforts are now developing and evaluating new instrumented dummy legs for their ability to detect and more accurately assess injurious circumstances.

Because of the extremely complicated anatomy of the neck and the multitude of impact conditions and positions possible in the automotive crash environment, the study of injuries to the neck is a very difficult task. However, even under these difficult circumstances, we are making progress. The focus of our initial efforts is injuries resulting from compression forces which push the head into the neck. Appropriate experimental protocols and injury evaluating techniques have been developed and a significant number of tests have been conducted. Data analysis is now underway, and we expect that a tentative criterion will be available within the year. Our attention will then be directed toward injuries induced by tension and rearward bending induced by either air bag systems or rear end collisions.

A series of side impact abdominal tests with cadavers were recently completed. These tests were conducted to: (1) verify that proposed abdominal injury criteria from previous studies could be applied to human abdominal and specific organ injuries, (2) to propose and validate mechanical response corridors for the human abdomen, and (3) assess the ability of new instrumentation technology to assess side impact injuries. The testing validated the abdominal response corridors, demonstrated that the application of the new technology is feasible for future side impact testing, and established the injury predictive capabilities for several potential injury criteria.

CRASH AVOIDANCE -- HUMAN FACTORS -- ITS

Question. NHTSA has requested $4,000,000 for Driver/Vehicle Crash Avoidance Research. Please break down this request in detail (R&A-20).

Answer. There are four primary activities that need to be funded in FY 1997. They are Research on Performance of Antilock Brake Systems (ABS), Research on Vehicle Rollover, Tire Performance Research, and Research on Rear Field-of-View. These research programs would be undertaken in direct support of NHTSA's regulatory efforts in crash avoidance.

The ABS research will conduct analyses of accident data of ABS-equipped vehicles and will build on the extensive analysis of accident data. Analysis to date shows that currently available systems are helping reduce the number of multi-vehicle collisions on wet roads, but may be associated with an increase in the number of collisions that occur off the roadway. The research will include studies of differences in the algorithms used to activate the antilock mode, generational differences between different ABS systems, studies of driver reaction to various emergency situations, and research into risk compensation. We will use driving simulators, analytical models, and test track experiments to do this work. This program is estimated to cost approximately $2 million.

The rollover research will include a thorough analysis of NHTSA crash data files to develop a better understanding of the causal factors in rollover collisions. Based on this analysis, rollover collisions will be subdivided by the type of rollover and rollover mechanism. A detailed analysis of performance will be performed for selected vehicles which have a higher-than-average propensity to roll over under specific conditions. These studies will be the basis for development of a methodology to identify critical vehicle characteristics related to rollover and development of test procedures for relating vehicle characteristics and rollover stability. The cost of this project is expected to be approximately $1.0 million.

The tire research will determine factors which degrade performance and will develop a data base of tire performance under a wide range of dynamic conditions. This data base will be used to develop improved performance metrics which could be used to establish increased performance requirements for tires. The cost of this research project is about $0.5 million.

The research on rear field-of-view will study the performance of available mirror systems and provide a base for new specifications of mirror systems that can effectively help drivers safely change lanes and merge. This project will cost about $0.5 million.

Question. How much was spent previously on this research and from which R&D budget sectors were these funds obtained?

Answer. For the past several years, the agency has not had a specific NHTSA-funded crash avoidance research program to support regulatory responsibilities of the agency in this area. The entire research activity in crash avoidance in NHTSA was directed towards the use of ITS technologies for prevention of accidents.

Question. What research is NHTSA doing and planning to determine why ABS on passenger cars is not providing the benefits that were expected?

Answer. A comprehensive plan of research is being developed by NHTSA to gain insight into the performance of ABS-equipped vehicles in their real-world operation.

These efforts can be divided into three broad areas of research activity:

Accident Data Analysis: The agency will continue its analyses of accident data selecting samples of identical vehicles with and without ABS to obtain a technical explanation on performance differences in vehicles with and without ABS. In this regard, NHTSA will be looking at generational and other characteristic differences of general ABS systems.

System Performance Analysis: Subject to availability of funds, NHTSA will conduct tests to assess ABS performance under different road surface and operational conditions.

Human Interaction Analysis: Simulator and track test experiments will be conducted to evaluate driver actions in emergency situations, especially assessing the effects of differences in brake pedal feedback cues and other feedback characteristics.

Question. How is NHTSA merging the AVCS program with the AHS initiative? What cost savings can be realized and how is this reflected in the FY 1997 request?

Answer. The NHTSA program of research into the characteristics of effective collision avoidance systems is not merged with the AHS program. There is a substantial amount of interaction between the programs and relevant knowledge is provided to the AHS program as it becomes available. The issues associated with the two programs are not the same and thus there is no common set of research projects which would fit the needs of the two projects. This dissimilarity is reflected in the budget request. The request for each program is the amount necessary for the next steps and does not reflect any merging of the two programs.

Question. Please present data on all ITS operational tests for FY 1995, FY 1996, and planned for FY 1997. Please identify objectives, results, date of completion, publication, and challenges or associated problems. Please identify funding by Federal and non-Federal sources.

Answer. The operational test projects, objectives of each, anticipated completion date, and funding profile are as follows:

Field Operational Test of an Automated Collision Notification System for Emergency Notification
This test evaluates an in-vehicle system that automatically alerts Emergency Medical Services after a crash. Local EMS providers and the medical community will assist in the evaluation of the time savings and impact on medical outcomes of crash victims to assess system benefits.

Federal Funding:
FY95: $2,496,882
FY96: $ 573,681
$3,070,563
Non-Federal funding:$863,095
Total Funding: $3,933,658

Expected completion date: March 1998

Passenger Car Intelligent Cruise Control Field Operational Test
This project will evaluate intelligent cruise control technology in passenger cars. The focus is on evaluating the safety aspects of intelligent cruise control.

Federal Funds:
FY95: $1,391,567
FY96: $ 587,318
FY97: $ 821,115
$2,800,000
Non-Federal funding: $700,000
Total Funding: $3,500,000

Expected completion date: September 1997

Heavy Truck Intelligent Cruise Control Field Operational Test
This project will evaluate intelligent cruise control technology using several fleets of heavy trucks for 24 months. The focus is on evaluating safety aspects of intelligent cruise control under the driving conditions experienced by drivers of heavy trucks.

Federal Funds:
FY96: $ 667,000
FY97: $1,500,000
FY98: $1,000,000
Non-Federal funding: $2,111,000

Total Funding: $5,278,000

A new operational test of a collision avoidance system: to be started in FY 1997 with initial Federal funding of $4 million. Details have not yet been determined.

None of these operational tests has begun to place vehicles in service, so no results or publications are available yet.

NATIONAL ADVANCED DRIVING SIMULATOR

Question. Please break down the $10.5 million requested for this facility in detail (R&A-16).

Answer. The $10.5 million requested for the NADS Facility will fund the continuance of two contracts: one ($10 million) for the System Development of the NADS by TRW Inc., the other ($0.5 million) for Program Management Support by Dynamics Research Corporation (DRC).

The $10 million will provide for continued funding of TRW to: (1) complete the NADS detailed design, (2) begin purchasing equipment, manufacturing hardware, and coding software, and (3) commence subsystem integration and testing.

The $0.5 million will provide for continued funding of DRC to support the NADS Program Office with specialized expertise in Systems Engineering, Hardware and Software Test and Evaluation, and Cost and Performance Analysis. This contract includes a subcontract with Tecolote Research Inc.,(TRI) for price and cost analysis support.

Question. What is the relationship between the NHTSA ITS program and the NADS?

Answer. The NADS is an essential element of NHTSA's ITS program. The NADS facility will make it possible for design engineers to test the performance of advanced collision avoidance safety systems under the most demanding and hazardous driving conditions, while ensuring total safety of the human test drivers. This will allow engineers to closely match the ITS collision avoidance warnings and information output with the capabilities of representative drivers, so that information overload, confusion, fatigue, etc., do not compromise the performance of the overall system. The NADS will be utilized to design and optimize ITS technologies as they flow through the various stages of system development, by means of its hardware-in-the-loop capability. The NADS will also be a critical tool in assessing the consequences of sudden system or component failure and their effects on overall operational safety of vehicles.

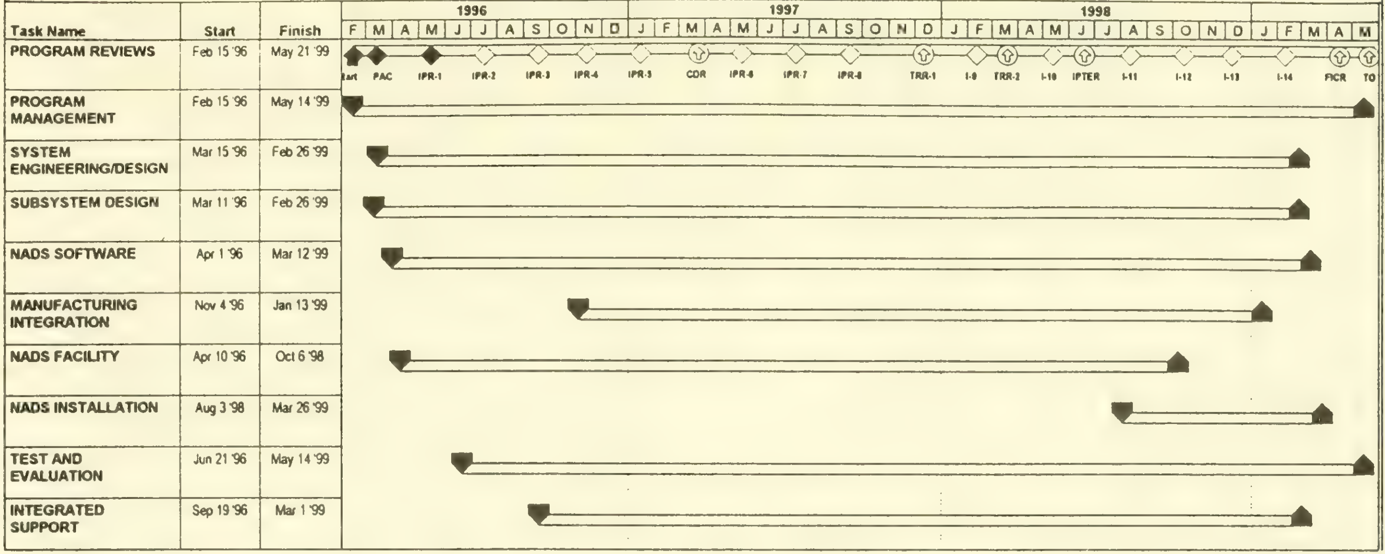
Question. What is the status of the NADS project?

Answer. The detailed design of the system hardware and software is underway. NHTSA has conducted a Post-Award Conference to clarify the NADS requirements and the NADS contractor's (TRW) responsibilities in conducting this project. Also, the first of the bimonthly technical reviews has been conducted. In addition, several coordination meetings have been held between the University of Iowa Architectural Services Division, their architectural and engineering contractors, TRW, and NHTSA, to define the engineering and design requirements for the NADS facility building. The University of Iowa is expected to award the contract for the building design in 1996. The next major milestone will be the Critical Design Review, which will be held in March 1997.

Question. Provide a revised schedule and major milestone chart for the NADS project.

Answer. See attached Table.

NADŚ SYSTEM DEVELOPMENT MASTER SCHEDULE



Task Name	Start	Finish
PROGRAM REVIEWS	Feb 15 '96	May 21 '99
PROGRAM MANAGEMENT	Feb 15 '96	May 14 '99
SYSTEM ENGINEERING/DESIGN	Mar 15 '96	Feb 26 '99
SUBSYSTEM DESIGN	Mar 11 '96	Feb 26 '99
NADS SOFTWARE	Apr 1 '96	Mar 12 '99
MANUFACTURING INTEGRATION	Nov 4 '96	Jan 13 '99
NADS FACILITY	Apr 10 '96	Oct 6 '98
NADS INSTALLATION	Aug 3 '98	Mar 26 '99
TEST AND EVALUATION	Jun 21 '96	May 14 '99
INTEGRATED SUPPORT	Sep 19 '96	Mar 1 '99

Acronyms

PAC	Post Award Conference
IPR or I	In-Process Review
CDR	Critical Design Review
TRR	Test Readiness Review
IPTER	In-Plant Test and Evaluation Review
FICR	Facility Installation Certification Review
TO	Turnover

Question. When was the last time NHTSA approached industry, both foreign and domestic, and foreign governments to provide support for NADS?

Answer. NHTSA has approached both Transport Canada and the Japan Automobile Manufacturers Association in April/May 1996. In addition, some discussions were held with Honda in April 1996. No responses have been received. Discussions with domestic manufacturers have not resulted in financial support for NADS.

Question. Please describe in detail the mechanisms used and the response received.

Answer. NHTSA's administrator, Dr. Martinez, met with high level officials at Transport Canada and the Japan Automobile Manufacturers Association in April and May 1996, respectively, to propose that they participate as financial and technical partners in developing the NADS. These meetings were followed up by letters from Dr. Martinez, encouraging them to become part of the NADS development team. Both organizations are currently developing positions on possible participation in the NADS development. NHTSA expects to receive a decision shortly from manufacturers concerning funding for NADS.

Question. What approaches have been made to other Federal agencies to participate in funding for NADS? What were the results?

Answer. Briefings have been conducted with the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and the Federal Transit Administration (FTA). As a result, the FHWA ITS Joint Program Office requested $4 million in FY 1997 to support the NADS development. The FHWA Office of Motor Carriers has also been briefed and has indicated that it will request funds to support the NADS in its FY 1998 and FY 1999 budgets. The FRA and FTA both support the development of the NADS. However, due to the relatively small size of the FRA and FTA research budgets and commitments to other research priorities, neither organization is able to provide funding to support the NADS development. The FRA has stated that if the NADS were available today, it would be used in their research programs. These research programs would deal with the primary issues of rail crossing safety and traffic signal timing, interaction between rail crossing and roadway design, development, and testing of alternate rail crossing warning systems, effects of driver experience, training, and risk-taking behavior, and the design and evaluation of active barriers or vehicle arresting systems as alternatives to crossing gates.

NHTSA also has had discussions with the Army's Tank Automotive Command (TACOM) in Warren, Michigan, and the Army's Test and Evaluation Command (TECOM) in Aberdeen, Maryland, concerning cost sharing and utilization of the NADS. TACOM has indicated that they will be a major user of the NADS for new military ground combat vehicle research and development when the facility becomes operational. However, because of the DOD downsizing, neither organization is in a position to commit funds for the NADS development at this time. A meeting is being scheduled with the Army Simulation Training and Instrumentation Command (STRICOM) in Orlando, Florida, to discuss their participation in the NADS project.

Question. What steps has NHTSA taken to reduce the acquisition cost of the NADS?

Answer. NHTSA has done several things to contain cost since the program inception: (1) A specific, comprehensive set of system functional requirements was developed and documented to form the basis of the NADS acquisition; (2) A design competition was conducted to ensure that a design meeting those requirements could be built at low cost and technical risk, and within program schedule. The qualifications of the two design competition contractors were evaluated by a team of simulator design experts, considering the soundness of their technical design, integration and testing approach, and program management capability. This led to the selection of TRW as the Phase II NADS Development Contractor; (3) Prior to contract award, NHTSA evaluated TRW's track record in performing similar large hardware-software system development projects involving multiple subcontractors and found them to have excellent performance in completing such programs within cost and on schedule; and (4) TRW is required to prepare detailed work packages for the complete NADS program and to report on the cost of these packages on a monthly basis. NHTSA has engaged the services of a respected cost evaluation contractor, Tecolote Research Inc., to analyze these data and report on cost and schedule variations, and recommend corrective actions, as required.

Question. What steps will NHTSA take to contain the development cost of the NADS?

Answer. To contain the development costs of NADS, NHTSA is taking the following steps:

Conduct bi-monthly In-Process Reviews (IPRs) alternating at each TRW Team member's facility. The IPRs are milestones in the System Development contract and afford the NHTSA program management team interaction with the technical experts, on-site, to provide visibility into technical, management, and cost issues.

Monthly Progress Reports (MPR) provide NHTSA with additional information regarding emerging technical details that might affect cost. This report includes an accounting against the approved Work Breakdown Structure (WBS) for which NHTSA has a detailed budget for all work packages. WBS budgets are correlated with the program schedule and are used by all subcontractors. The cost/schedule reporting includes cost and schedule variance analysis against the budget and program schedule, as well as a revised Estimate To Complete (ETC). Through this report, NHTSA can evaluate TRW's use of their management control system and procedures that evaluate work progress by relating cost, schedule, and technical performance. In addition to TRW's assessment of cost and schedule performance, NHTSA will perform an independent assessment and analysis of cost and schedule risk with the assistance of Tecolote Research Inc. Through IPR attendance and MPR evaluation, several cost and schedule metrics will be used as part of the continual assessment of budget compliance.

A Critical Design Review (CDR) will be held in spring 1997 that will provide NHTSA the opportunity for a total review of the latest cost, schedule, and technical baselines.

RESULTS AND ASSESSMENT OF RESEARCH

Question. Much of NHTSA's research supports its rulemaking activities. For example, each rulemaking includes an estimate of lives saved. Such information helps federal and state government understand the impacts of NHTSA's rulemaking. States also use NHTSA's research data to enhance their understanding of driver behavior issues. Please cite examples of short- and long-term NHTSA research that have led to improvements in surface transportation safety.

Answer. Research and rulemaking efforts to improve motor vehicle safety have emphasized crash avoidance and occupant protection.

Crash avoidance priorities have included an aggressive program to analyze the causal factors in accident causation and the development of preliminary performance guidelines for assisting drivers in avoiding several types of collisions through the use of intelligent transportation systems (ITS) technologies. Work was completed on several projects which addressed driving behavior considerations such as driver workload assessments of ITS countermeasures.

In the area of occupant crash protection, efforts emphasized improved protection in frontal crashes, side impacts, rollovers, child restraints, fuel system integrity, and seating systems. One recent example of NHTSA's research that has led to improvements in surface transportation safety showed that rear-facing infant restraints should not be placed in the front seat of a vehicle equipped with a passenger-side air bag. Another example is NHTSA's hospital studies which have worked closely with Emergency Medical Services in programs like

"Lift and Look" to identify emerging motor vehicle injury patterns due to new technology such as air bags or occult liver injuries due to two point safety belts.

Question. What are the most important actions that would improve federal surface transportation research management and results?

Answer. The Nation's surface transportation system will continue to evolve over the next two decades within the context created by several important trends and issues. The following is a sampling of the most prominent of these. The global economy is becoming increasingly competitive, placing increasing pressure on individuals and businesses, which in turn increases the importance of maximizing transportation efficiency while minimizing costs. The U.S. population is aging and it will continue to do so over the next two decades, making it important that means of providing continued access and mobility be identified. At the same time, internal migration of the resident population continues to cause increasingly dispersed travel patterns and even greater reliance on the automobile. Congestion is likely to persist in most areas of the country that continue to experience growth, and physical expansion of infrastructure will face serious obstacles. This raises the importance of the deployment of an intelligent transportation infrastructure as a means to maximize the efficiency and provide for prudent measures to enhance transportation safety.

The focus of NHTSA's research is outcome measure oriented and addresses three areas: Reducing the Occurrence of Crashes, Reducing the Consequences of Crashes, and Customer Service. NHTSA's research management and results are a critical piece in fulfilling the agency's mission to reduce the deaths, injuries and economic losses resulting from motor vehicle crashes.

Maintaining or increasing NHTSA's budget in these areas is crucial to fulfilling the agency's mission.

Question. Should more or less emphasis be placed on materials research, policy analysis, system assessment, services, or other issues in the future?

Answer. Motor vehicles are a major element of our transportation system. In fact, transportation's performance, safety, security, cost, environmental impact, economic consequences, and contributions to quality of life are all determined largely by the vehicles that carry people and goods. Today, our transportation system faces a dual challenge: increased global competition for our transportation industries, and increased demands for mobility from our citizens. Meeting this challenge will require a next generation of vehicles that meets rigorous standards for reliability, cost, safety, energy use, and environmental impact. Thus, a strategic goal for transportation R&D is enhancing the overall performance of vehicles of all types, while expanding the range of available alternatives.

Unlike physical infrastructure improvements, vehicle technology improvements are achieved through long-term R&D that optimizes and leverages the use of both public and private resources. Federal investment is needed to increase safety and to assure a continuous flow of innovation.

Greater emphasis should be placed in all of these areas in the future.

Question. What roles should federal and state governments, universities, and the private sector play in transportation research?

Answer. Transportation efficiency and national productivity are inextricably linked. The capacity of the transportation system to enable the nation to respond to international economic challenges is an increasingly critical factor in transportation research, development, and education. America's future prosperity depends on new ideas and the people who will develop and apply those ideas to ensure the safe and efficient movement of people and goods.

The development of new applications and the conversion of defense-related technologies to transportation uses will demand new partnerships among federal and state governments, universities, and the private sector. NHTSA's policy is to leverage its comparatively small investment by strategically co-investing with others, enabling us to take full advantage of all available talent, resources and knowledge that exist, to maximize the efficiency of transportation research.

Establishing new and expanding existing partnerships with other federal agencies, state governments, universities, and the private sector play a pivotal role in future transportation research.

Question. What would be the result of reducing federal surface transportation research expenditures? Is it realistic to assume that states, universities, and the private sector can or will assume more responsibility for surface transportation research?

Answer. Since World War II, collaborative research partnerships have been the intellectual centerpieces of Federal policy for research, education, and innovation in all policy areas. Federal research and development contracts and grants have been integral to new discoveries to provide a steady stream of ideas to improve the nation's safety, health, security, and industry.

The result of reducing federal surface transportation expenditures would be devastating in that it is unrealistic to assume that states, universities, and the private sector can or will assume more responsibility for surface transportation research. Historically, when the federal role is reduced below a critical level, our partners scale back or terminate their own research efforts rather than assume more responsibility. In an era of shrinking resources, the likelihood of our partners assuming more responsibility for surface transportation research is even more remote.

HIGHWAY SAFETY DATA PROGRAMS

FATAL ACCIDENT REPORTING SYSTEMS

Question. NHTSA has requested $5,251,000 for the Fatal Accident Reporting System (FARS) for FY 1997. Please breakdown this request in detail and compare to FY 1996 and FY 1995 by major activity areas (R&A-22).

Answer. The information follows:

Comparison of FY 95, 96 and 97 Funding, by Activity
(Dollars in Thousands)

	FY 95 Enacted	FY 96 Enacted	FY 97 Requested	FY 97 Increase over FY 96
State Coop. Agreements	3,451	3,811	4,111	300
Data Processing	684	600	890	290
Training	88	164	225	61
Quality Control	28	10	25	15
Total	4,251	4,585	5,251	666

Question. Which are the most important components and associated amounts of the increase requested for the FARS and why?

Answer.

1) Cooperative Agreements($300K)- All 52 cooperative agreements are being re-negotiated in 1996 for a five-year period beginning in 1997. This increase in funding will cover increases in labor costs, state fringe benefits and overhead rates.
2) Data Processing ($290K) - This increase addresses three new areas to improve the FARS data system by employing current technological advances for improving the utility and ease of use of FARS data for the analytical community and other FARS data users, specifically:
    A.) One hundred fifty (150) FARS field personnel will be trained in the use of Windows, Report Smith, and the World Wide Web.
    B.) Imaging of state source documents including the Police Accident Reports will be incorporated into the system. This will assist in performing in-depth, clinical engineering analysis.

C.) FARS data will be installed on the World Wide Web/Internet, enabling all Internet users to perform data analysis.

3) Training ($61K)- This increase permits a shift in the system-wide training from October to September. Therefore in this single fiscal year we will have two training sessions, one in October 1996 and one in September 1997. Thereafter, there only would be one system-wide training per fiscal year.

4) Quality Control($15K)- This increase will assist in ensuring accurate fatality counts in special interest areas such as; deployed air bags, police pursuits, and fires.

Question. What is the status of the training programs for FARS state analysts?

Answer. Although the FARS system has a very low personnel turnover rate, new state employees entering the FARS program must receive an in-depth battery of training which includes an automated self-paced training module, a one week formal training course and the system wide training. In 1995, we trained 22 state FARS analysts in the self-paced and formal training session, and 150 state FARS analysts and supervisors at the system wide training. In the system-wide training, the analysts and supervisors receive an update in coding issues, computer applications, and how to analyze FARS data for improved state use.

The training modules and training courses are updated annually to accommodate and incorporate important new highway safety priorities, new coding criteria and changes in guidelines for the new year. These modifications to the training modules ensure uniformity of coded data across all fifty States, the District of Columbia and Puerto Rico.

For the first time, we will be performing computer assisted diagnostic testing of the state FARS analysts. This testing will accurately identify areas of data coding where more and improved training may be required.

Question. Please describe the database enhancements and specific costs associated planned for FY 1997.

Answer. In 1985, FARS converted from a mainframe application to a microcomputer-based data entry and collection system. For 1997, we are converting those processes from an archaic COBOL system to a more technologically efficient and currently supported applications run under Windows. As a result of these new technologies, it is now possible to append source documents to the analysis file. This improvement will provide the analytic community with a vast increase of information and data for analysis. In addition, provisions are being made to adapt FARS to the World Wide Web. This will expand the number of users and permit access to this data base for analysis. The data processing increase($290 thousand) addresses three new areas to improve the FARS data system by employing current technological advances for improving the utility and ease of use of FARS data for the analytical community and other FARS data users, specifically: A) One hundred fifty (150) FARS field personnel will be trained in the use of Windows, Report Smith, and the World Wide Web. B) Imaging of state source documents including the Police Accident Reports will be incorporated into the system. This will assist in performing in-depth, clinical engineering analysis; and C) FARS data will be installed on the World Wide Web/Internet, enabling all Internet users to perform data analysis.

NATIONAL ACCIDENT SAMPLING SYSTEM (NASS)

Question. Please break down the NASS request in detail and compare these expenditures, by activity, to the FY 1996 program.

Answer. The funds requested for FY 1997 will continue NASS Crashworthiness Data System (CDS) and General Estimate System (GES) data collection at the FY 1996 system level of effort. Approximately 90 percent ($8.66 million) of the total budget request for FY 1997 ($9.675 million) is allocated to direct labor costs for collection of data, quality control of these data, and creation of the statistical data files. Of the remainder, $60,000 is essential for final payments to contractors for contract closeouts not completed in FY 1996; $330,000 is budgeted for training replacement CDS and GES field staff; $75,000 is budgeted for evaluating, upgrading and reprogramming the SMASH algorithm (an essential and improved tool for relating crash severity to injury levels in newer vehicle designs); and $550,000 is budgeted for completing the conversion to an electronic data collection system and creating the capability for the rest of the Agency to access a NASS relational database with digital images for analytical and clinical analysis, including plans for integration and/or conversion of video products and scanned products into the NASS data collection and transmission function.

FY 1996 allocations were similar to the FY 1997 Request. Approximately 90 percent ($8.233 million) of the FY 1996 funds ($9.2 million) was allocated to direct labor costs for collection of data, quality control of these data, and creation of the statistical data files. Of the remainder, there were no funds allocated for contract closeout in prior years; $330,000 was budgeted for training replacement CDS and GES field staff; $133,000 was budgeted for evaluating, reprogramming, and subsequently replacing the CRASH algorithm (an essential tool for relating crash severity to injury levels in vehicle designs) with the SMASH algorithm; and $504,000 was budgeted for initiating the conversion to an electronic field data collection system and creating a NASS CDS relational database with digital images for analytical and clinical analysis.

Question. Why does NASS need $475,000 in additional funding when no new initiatives are planned? Which are the most important components and associated amounts of the increase requested for the NASS and why (R&A-25)?

Answer. The FY 1997 request will fund investigation of NASS crashes and the collection and coding of data at 24 CDS sites, 60 GES sites, and two CDS Zone Centers. The Department of Labor (DOL) completed a three year evaluation of the NASS labor rate structure in October 1995 and concluded that NHTSA must grant a labor rate increase to contract personnel in the NASS program in compliance with requirements of the Service Contract Act (SCA). The SCA was established by Congress for determination of wage rates for various classes of employees in establishments providing services to the Federal Government. The total SCA labor cost impact is $911,000 of which $775,000 is being absorbed by savings resulting from increased efficiency in NASS data collection over a three year period (FY 1994 through FY 1996). In FY 1997, $136,000 is requested to support the SCA labor cost increase as established by DOL and implemented by NHTSA over a three period. The FY 1997 request also includes a 3.68 percent cost of living increase ($339,000) which is part of the agreement for the 4th and 5th contract extension years for NASS data collection. These two components necessitate the need for the additional $475,000.

DATA ANALYSIS

Question. Please break down the $2,100,000 request for Data Analysis in extensive detail and compare to the FY 1996 and FY 1995 allocations (R&A 26).

Answer.

Program Components	FY 1995 ($000)	FY 1996 ($000)	FY 1997 ($000)
Provide Agency Analytic Support	625	400	650
Exposure Data Research	75	125	220
Quality Control & Sampling Support	454	565	870
Customer Service/Information Dissemination	325	325	360
Program Budget Totals	1,479	1,415	2,100

Question. No new initiatives are planned for Data Analysis, yet the requested budget increase is nearly 50 percent. Please describe the need for this increase at this particular time.

Answer. Increased resources have been requested to support important analyses related activities. There will be an increased need for the analytic support of agency programs and to continue improvements in data collection activities. With the advent of increases in speed limits on many of the nation's highways, the agency is in the process of evaluating any impact on safety. The requested funding included increased amounts to support research in this critical safety area. Also, through its Strategic Plan, NHTSA is committed to improving the quality and utility of the data it collects. This funding request includes increased monies in quality control for data systems. Contract resources were also requested for supporting initial efforts to collect improved exposure data.

Question. What are the implications of holding Data Analysis to the FY 1996 level?

Answer. Increased resources have been requested to support important analyses related activities. There will be an increased need for the analytic support of agency programs and to continue improvements in data collection activities. With the advent of increases in speed limits on many of the nation's highways, the agency is in the process of evaluating any impact on safety. The requested funding included increased amounts to support research in this critical safety area. Also, through its Strategic Plan, NHTSA is committed to improving the quality and utility of the data it collects. This funding request includes increased monies in quality control for data systems. Contract resources were also requested for supporting initial efforts to collect improved exposure data.

Data analysis activities provide a great deal of leverage on highway safety activities for a very modest investment. Analysis is used to help support state efforts to pass tougher alcohol, safety belt use, and traffic enforcement laws. Analysis supports wide ranging rulemaking and enforcement activities. The highway safety community recognizes that a weak link in evaluating certain highway safety problems is exposure data. The resources requested are modest and the potential payoff is large in the data analysis area.

STATE DATA PROGRAM

Question. Please break down in detail the different uses of the FY 1996 monies for the State Data Program. How much money goes towards helping the States improve their data systems and how much is used by NHTSA to improve the utility of State data files submitted to the Agency? Please provide comparable data for the FY 1997 request.

Answer. The following table breaks down the FY 1996 and the proposed FY 1997 budget for the State Data Program.

Initiative	FY 1996 ($000)	FY 1997 ($000)
Obtain, document & convert data files from 17 states	$860	$900
Assist states in improving their databases	$0	$265
Evaluate linked medical outcome and crash databases	$420	$420
Promote linked crash and medical outcome data and investigate its usefulness	$270	$300
Assist state and local agencies in data linkage	$0	$465
Provide grants to states to link their crash and injury data	$0	$1,500
Total	$1,550	$3,850

NHTSA spends approximately $860,000 each year to improve the utility of state data files submitted to the Agency. This funding is used to obtain, convert to usable computer format, document, and provide computer resources necessary for Agency use of these data. The remainder of the State Data Program budget is used to help states improve their data systems. Included are providing assistance to states in the use of their data, sponsoring forums and meetings which discuss collection, processing, and analytical issues, and activities to support additional data linkage through the Crash Outcome Data Evaluation System program.

Question. Please break down the FY 1997 request for the State Data Program in detail, identifying any new initiatives under this program.

Answer. The following table breaks down the FY 1996 and the proposed FY 1997 budget for the State Data Program.

Initiative	FY 1996 ($000)	FY 1997 ($000)
Obtain, document & convert data files from 17 states	$860	$900
Assist states in improving their databases	$0	$265
Evaluate linked medical outcome and crash databases	$420	$420
Promote linked crash and medical outcome data and investigate its usefulness	$270	$300
Assist state and local agencies in data linkage	$0	$465
Provide grants to states to link their crash and injury data	$0	$1,500
Total	$1,550	$3,850

Initiatives planned for the FY 1997 Budget Year are:

- Introduce a program to develop a standardized data set for collection of motor vehicle traffic crash information. The availability of a set of standard, recommended definitions for crash data collection would help promote comparability among the states. (+$265K)

- Provide additional grants to states for use of CODES data to support highway safety, traffic safety and motor vehicle injury control programs. ($420K)

- Increase the availability of technical assistance for all states interested in linkage. (+$465K)

- Expand efforts to encourage other states to link data by providing new grants to 6 - 8 additional states to help them successfully link their crash and health care data. (+$1,550K)

Question. Are the grants described funded over multiple years?

Answer. Grants to states to link their statewide motor vehicle crash data with statewide medical outcome data are envisioned as being a single year grant. However, because they will be competitive among the potential applicants, award is not expected until the middle of FY 1997. Consequently, funding will be expended over both FY 1997 and FY 1998.

Question. Do States use some of their Section 402 monies to conduct CODES or similar linkage activities? What quantitative data do you have on this topic?

Answer. CODES and similar linkage activities are eligible activities under Section 402. In FY 1996, we are beginning a program to use the expertise of CODES states to provide technical assistance to non-CODES states to promote data linkage activities. The non-CODES states receiving technical assistance from their state peers will be able to use their Section 402 monies to implement changes in their data systems to initiate or improve linkage efforts. At this time, we do not have quantitative data on this topic.

Question. Explain what the additional $1.5 million for the Crash Outcome Data Evaluation System (CODES) will be used for.

Answer. Information provided by the 7 Crash Outcome Data Evaluation System (CODES) states that successfully linked statewide crash and injury databases has been used by NHTSA and the States in various ways: to document the benefits of safety belt and motorcycle helmet use; to evaluate the effectiveness of emergency medical services; to document the costs of drunk driving; and to seek the passage of effective laws such as mandatory motorcycle helmet use by documenting the costs to the taxpayer of unhelmeted, uninsured riders. Because of the value of the CODES data, the original seven states are institutionalizing this effort as a part of their regular health promotion, injury prevention, and highway safety activities. The funds requested for FY 1997 will provide small grants (up to $200,000) to 6 to 8 additional states to help them successfully link their crash and medical outcome data. This funding will be used for file preparation including quality review, actual linkage efforts including purchase of a dedicated computer to accomplish the linkage activity, and analysis of the linked data. Consequently, states would need to have in-place crash and injury databases. No funding would be used to complete development of databases which are not already statewide and computerized.

Question. Why are CODES data important?

Answer. As a result of Crash Outcome Data Evaluation System (CODES), we have a more definite understanding that the use of occupant protection devices not only saves lives, also save money. Using linked data, the 7 CODES states have shown the benefits of safety belt and motorcycle helmet use, documented the costs to the taxpayer of head injuries caused to unhelmeted motorcycle riders, evaluated the effectiveness of emergency medical services, and documented the costs of drunk driving. The CODES states have found that managers and legislators are more receptive to programs when justified by data from their own state. Because of the proven value of the CODES data, the original seven states are institutionalizing this effort as a part of their regular health promotion, injury prevention, and highway safety activities. If other states develop their own CODES, the resulting linked data can play an important role in leading states to develop performance-based systems.

Question. The requested amount in State Data programs increases from $1,550,000 in FY 1996 to $3,850,000 in FY 1997. Please describe in detail the necessity for the additional funding and what will not be accomplished if the funding is not provided. How would you use an increase of $500,000 in this area (R&A-28)?

Answer. Data collected by the states continue to be an invaluable tool for NHTSA as well as the states. Data are being used to identify and study problems related to drunk driving, speeding, safety belt and motorcycle helmet use, etc., by both NHTSA and the states. The report from the Crash Outcome Data Evaluation System (CODES) project, which was based on linked, statewide crash and medical outcome data files in seven states, provided us for the first time with scientific evidence that the use of safety belts and motorcycle helmets not only saves lives, *but also saves money*. Because CODES data have proven invaluable to the CODES states in understanding the true costs of traffic crashes as well as understanding the magnitude of highway safety problems, the State Data Program is being expanded considerably to help additional states successfully link their crash and health care data.

The increase in funding will be used to: implement a program to develop a standardized data set for collection of motor vehicle traffic crash information, promoting comparability among the states; provide additional grants to states for use of CODES data to support highway safety, traffic safety and motor vehicle injury control programs; support at the national level analyses of linked data provided to NHTSA by CODES states; increase the availability of technical assistance for all states interested in linkage; and, expand efforts to encourage other states to link data by providing new grants to 6 - 8 additional states to help them successfully link their crash and health care data.

An increase in funding of $500,000 would limit program initiatives to providing new grants to 2-3 additional states to help them successfully link their crash and health care data.

Question. How has NHTSA improved its collection of information dealing with injuries?

Answer. Police reported motor vehicle crash data, which serve as the basis for most of NHTSA data systems, e.g., the Fatal Accident Reporting System, the General Estimates System, and the State Data Program, are very limited in terms of reporting of injuries to crash victims. In most states, nonfatal crash victims are reported as suffering an "incapacitating" injury, a "non-incapacitating" injury, a "possible" injury or no injury. Even the classification of which victims belong in these categories is widely variable between states and within states. In the Agency's primary crash investigation program, the NASS Crashworthiness Data System, NHTSA reports these police classifications, but relies on classification of injuries coded directly from medical information collected from hospitals, physicians, or the victims themselves. To improve the collection of injury information at the state level, NHTSA is encouraging states to link their crash data with medical outcome information through programs like the Crash Outcome Data Evaluation System (CODES). By linking to emergency medical service, emergency department, hospital, and other inpatient care data files, a state implementing a CODES program will be able to classify the severity of injuries of crash victims by treatment levels, types of treatment, and injury outcome and will be able to report on costs of health care.

Answer. The purpose of the PNGV program is to develop production prototype vehicles by 2004 that have three times the fuel economy of a 1994 family sedan, while maintaining performance, size, and utility and while meeting or exceeding Federal safety and emission requirements.

Within the DOT budget, NHTSA requested $5 million to support its role in ensuri

PARTNERSHIP FOR A NEW GENERATION OF VEHICLES

Question. Please break down in detail the $5,000,000 request for the Partnership for a New Generation of Vehicles (PNGV). Exactly what activities will be conducted by NHTSA (R&A 34)? ng that the PNGV developed vehicles will meet existing and anticipated safety standards and that the overall crash and other safety attributes are not compromised by their light weight and the use of new advanced materials used in production of the vehicles.

Toward meeting the aforementioned stated objectives, research will be initiated to develop advanced computer models and acquire the computing capacity necessary to evaluate the crashworthiness characteristics of alternate vehicle designs and of the new lightweight materials. This activity will utilize $3.5 million of the requested budget.

Of the $3.5 million, approximately $2.5 million will be used to develop detailed finite element models for each of the PNGV vehicle platforms and for vehicles representing the fleet (e.g., subcompact, compact, mid-sized, and full-sized cars, small and large pickup trucks, and a minivan). This activity involves the tear down of the PNGV platform and selected fleet vehicles for scanning the vehicles to develop geometric data to be used in prescribing the finite element mesh, and for measuring the inertial and other physical properties of the vehicles.

Another $500 thousand will be used for crash testing that will be conducted to validate the models as well as provide for audits of simulations undertaken in support of the fleet analysis.

The remaining $500 thousand will be used as follows. Design concepts will be explored and evaluated for the various materials and power trains under consideration for the PNGV vehicles. This includes exploring the use of advanced structural materials such as composites and aluminum. It is anticipated that research into improved material models will be required in the computer software to accommodate these studies. Finally, a system model will be developed for identifying optimal characteristics for the PNGV vehicles.

NHTSA also will provide for peer reviews of the PNGV program and will initiate the creation of a comprehensive knowledge base for conducting analyses of the impact of the new vehicles on the U.S. economy, transportation system, and motor vehicle industry. This activity will utilize $1.5 million of the requested budget.

Of the $1.5 million, approximately $300 thousand will be used for the peer review, and the remaining $1.2 million will be used for the infrastructure analysis. For the various propulsion and vehicle design options, the need for new materials and components will be evaluated. On the basis of these needs, the resulting impacts will be assessed. These will include the cost and availability of materials (including the need for imports), manufacturing capacity, new facilities and tooling, capital requirements, impact on service and repair industries, impact on labor, impact on the fuels industry (including capital, distribution, and environmental concerns), and balance of trade considerations.

For this activity, the work will be broken down as follows. Of the $1.2 million cited above, approximately $500 thousand will be used for evaluating power plants (conventional engines, regeneration, batteries, fuel cells, transmissions) and vehicle design (materials, crashworthiness, handling, noise, emissions, damageability, and repairability). Another $400 thousand will be used for the motor vehicle industry, supplier industry, and fuels industry analyses. Finally, $300 thousand will be used for the national economic analyses.

Question. Why is this level of funding needed at this time?

Answer. During the next two years, the critical design decisions will be made on the PNGV vehicle. The basic vehicle shape, size, structural materials, and weight target will be chosen, and the power and energy storage methods will be selected. If NHTSA and DOT do not have sufficient resources to develop and provide the safety analysis and infrastructure analysis tools in these selections, it will be too late to affect the selection of the most promising technologies and too late to change the design of the first PNGV demonstration vehicles. That means that there would be a good possibility that the designs chosen would later be found to be deficient or unacceptable from a safety standpoint, an environmental standpoint, a national resource or economic standpoint. This could send the PNGV demonstration vehicle designs back to "square one" and set back the PNGV program back several years.

The agency believes that the public must be offered PNGV vehicles that are as safe as the ones that they will replace. Merely meeting the existing safety standards does not guarantee this performance. For these reasons, NHTSA must play an active safety role in the PNGV program. There are two aspects that require an active NHTSA role for ensuring the safety of the PNGV vehicles. The first is that unique safety problems may result from the use of new powertrain technologies being considered. Since a variety of new technologies are being considered for the PNGV, the agency needs to have an active role in evaluating and addressing their potential safety benefits or hazards. The second aspect relates to the estimated reduction in the PNGV platform weight that is anticipated in order to meet PNGV fuel economy requirements. Most estimates point to a weight reduction of 40 percent. Such a weight reduction could lead to dramatic increases in fatalities and serious injuries if proper care is not given to ensure that compatibility with the existing and future fleets is evaluated. The major concerns include vehicle aggressivity, geometric compatibility, and vehicle weight differences. However, note that this active role does not mean that the agency is moving away from establishing motor vehicle standards. In fact, depending on which technologies are selected, new safety standards may be required.

Question. What would be the effect of funding the modeling and safety-oriented activities at $2,000,000?

Answer. During the next 2 years, critical design decisions will be made in the PNGV vehicles. The basic vehicle shape, size, structural materials, and weight targets will be chosen, and the power and energy storage methods will be selected. If NHTSA and DOT do not have sufficient resources to develop and provide safety and infrastructure analysis tools for these selections, it will be too late to affect the selection (planned for late 1997) of the most promising technologies, and too late to change the design of the first PNGV demonstration vehicles. Consequently, there would be a good possibility that chosen designs would later be found to be deficient or unacceptable from standpoints of safety, the environment, national resources, and economics. This could send the PNGV demonstration vehicle designs back to "square one" and set the PNGV program back several years.

The original request for $5 million represented a minimal level to meet all DOT requirements. This full funding is reflected in the National Research Council's peer review, *Review of the Research Program of the Partnership for a New Generation of Vehicles, Second Report*. In this review, the committee noted that the absence of active participation of DOT in addressing and resolving PNGV safety issues was a major deficiency in the current program. The committee recommended that NHTSA should immediately be involved in identifying, addressing, and resolving the safety issues raised by the PNGV vehicles. As a minimum, $3.5 million is required to perform the necessary modeling and testing to assess PNGV safety. Without this funding level, it would not be possible to ensure that PNGV structural design can absorb crash forces without resulting in injuries to vehicle occupants such that injury risk is increased relative to today's vehicles.

Question. Please discuss the current status and accomplishments of the Partnership for a New Generation of Vehicles (PNGV) and why NHTSA should have a more definitive role in this project.

Answer. NHTSA has only been minimally involved in the PNGV program to date. The Department of Commerce is the lead Federal partner in the PNGV program and would be better able to answer the question regarding the status and accomplishments of the program. However, NHTSA should have a more definitive role in order to ensure that the PNGV developed vehicles will meet existing and anticipated safety standards and that the overall crash and other safety attributes are not compromised by their light weight and the use of new advanced materials used in production of the vehicles.

The agency agrees with the National Research Council's report, *Review of the Research Program of the Partnership for a New Generation of Vehicles, Second Report*, that the public must be provided PNGV vehicles that are as safe as today's vehicles. Simply meeting the existing safety standards does not guarantee this performance. For these reasons, we feel that NHTSA must play an active role in the PNGV program.

Question. What progress has the PNGV partnership made in the development of innovative car design? Exactly how far along are the various cooperative agreements or joint projects?

Answer. The initial selection of the technologies to be included in the PNGV demonstration vehicles is scheduled to take place in the 1997/1998 timeframe. As the Department of Commerce is the lead Federal partner in the PNGV program it would be better able to answer this question regarding the exact statue of the development of innovative car designs as well as the status of the cooperative agreements or joint projects.

Question. Part of the PNGV request includes funds for infrastructure analysis. Why does NHTSA propose funding infrastructure analysis or other activities without a direct safety connection?

Answer. The safety performance of a vehicle is dependent on the vehicle design, material selection, and manufacturing processes. These significantly impact vehicle weight and the resulting fuel economy which are major thrusts of the Partnership for a New Generation of

Vehicles. The infrastructure analysis will identify those economically practicable alternatives which will meet both the safety and fuel economy objectives. The results of such an analysis are required prior to a commitment to a design. Piecemeal analysis of PNGV program aspects will not be satisfactory. As the lead Federal agency responsible for the entire transportation system in the United States, DOT is in a unique position to comprehensively address the PNGV program with respect to safety and all of its anticipated impacts. (The National Research Council's *Review of the Research Program of the Partnership for a New Generation of Vehicles, Second Report*, 1996, page 22, states "Some of the technologies under consideration for the PNGV vehicle would, if implemented, result in very significant changes in the current highway-vehicle-fuel infrastructure, as well as shifts in the requirements for capital, labor, and natural resources.")

Question. What are the costs, risks and benefits of NHTSA not funding the PNGV program and simply performing crash tests on the vehicles after completion? What would be the expected costs of such crashes? What is the likelihood that a design flaw would be detected with either crashes or modeling?

Answer. During the next 2 years, the critical design decisions will be made on the PNGV vehicle. The basic vehicle shape, size, structural materials, and weight target will be chosen, and the power and energy storage methods will be selected. If NHTSA and DOT do not have sufficient resources to develop and provide the safety analysis and infrastructure analysis tools in these selections, it will be too late to affect the selection of the most promising technologies and too late to change the design of the first PNGV demonstration vehicles. That means that there would be a good possibility that the designs chosen would later be found to be deficient or unacceptable from a safety standpoint, an environmental standpoint, a national resource or economic standpoint. This could send the PNGV demonstration vehicle designs back to "square one" and set the PNGV program back several years.

Question. How will NHTSA's efforts be conducted with those of DOE and DOC?

Answer. For the most part, NHTSA's efforts will be carried out by its own staff, by staff at the Volpe National Transportation Systems Center (VNTSC), and by contracts awarded by both VNTSC and NHTSA. Direct communications will be established with DOE, DOC, and other Federal Partnership for a New Generation of Vehicles (PNGV) participants and contractors regarding the status and special needs of these safety and infrastructure analysis efforts. Additionally, direct communications will be established with Ford, General Motors, and Chrysler PNGV participants to review and coordinate their safety efforts in developing their respective PNGV designs.

Question. If proposed vehicles did not pass the crash test, how would the program be set back?

Answer. If the proposed vehicles do not pass the crash test, the designs would be deficient or unacceptable from a safety standpoint. According to the level of deficiency, this could send the Partnership for a New Generation of Vehicles demonstration vehicle designs back to "square one" and set the PNGV program back several years. However, even meeting the crash test requirements does not guarantee that the vehicles are adequate from a safety viewpoint. These vehicles must be evaluated for their overall safety in crashes. That is the purpose of the NHTSA role in this program, i.e., to ensure that the PNGV developed vehicles will meet existing and anticipated safety standards and that the overall crash and other safety attributes are not compromised by their light weight and the use of new advanced materials used in production of the vehicles.

Question. Please rank the PNGV activities in order of importance. Please identify activities which absolutely must be funded during FY 1997 and which can be delayed if budgetary reductions are necessary.

Answer. If the agency is to undertake the role that we have envisioned, undertaking all of the planned activities immediately is necessary and of utmost importance. Simply put, we have outlined the minimal program required to achieve the suggested role. Furthermore, the lack of an appropriation for PNGV in FY 1996 (contrary to the request in NHTSA budget request) has delayed the start of our activities required to support the program. The National Research Council's report, *Review of the Research Program of the Partnership for a New Generation of Vehicles, Second Report,* cites the lack of DOT participation in the safety analysis and recommends that NHTSA immediately be involved in the PNGV program.

Question. Have the technological features of the PNGV prototypes been determined? Exactly what will NHTSA study as part of the PNGV? How will NHTSA assess the safety of a vehicle that is not been agreed to? Are there too many assumptions that must be made to conduct reliable and useful analysis?

Answer. The first year's effort will be dedicated to developing the analytical models required to perform the safety evaluation. This includes efforts to develop detailed, finite element models for each of the PNGV vehicles and for vehicles representing the fleet (e.g., subcompact, compact, mid-sized, and full-sized cars, small and large pickup trucks, and a minivan). This will involve the tear down of the PNGV vehicles and selected fleet vehicles for scanning the vehicles to develop geometric data to be used in prescribing the finite element mesh, and for measuring the inertial and other physical properties of the vehicles. Crash testing will be conducted to validate the models as well as provide for audits of simulations undertaken in support of the fleet analysis. Design concepts will be explored and evaluated for the various power trains under consideration for the PNGV vehicles. This includes exploring the use of advanced structural materials such as composites and aluminum. It is anticipated that research into improved material models will be required in the computer software to accommodate these studies. Finally, a system model will be developed for identifying optimal characteristics for the PNGV vehicles.

Decisions on the basic design of the PNGV vehicles will be made in the next 2 years. To evaluate the fleetwide safety implications of the various PNGV configurations chosen independently by Ford, Chrysler, and General Motors, and their alternatives, NHTSA needs to have the detailed computer models up and running so they can be used by all PNGV participants to make safety assessments. Thus, even at the requested funding level for FY 1997, NHTSA will be challenged to complete the development of these basic assessment tools in time for them to be of use in critical decisions on PNGV vehicle concept designs.

Question. Does NHTSA plan to spend any funds on non-safety aspects of PNGV such as economic analyses, market penetration studies, industry impacts, etc.? Please delineate these expenditures.

Answer. NHTSA would expend $3.5 million of the requested funds for safety analysis. NHTSA also will provide for peer reviews of the Partnership for a New Generation of Vehicles program and will initiate the creation of a comprehensive knowledge base for conducting analyses of the impact of the new vehicles on the U.S. economy, transportation system, and motor vehicle industry. This activity will utilize $1.5 million of the requested budget.

Of the $1.5 million, approximately $300 thousand will be used for the peer review, and the remaining $1.2 million will be used for the infrastructure analysis. For the various propulsion and vehicle design options, the need for new materials and components will be evaluated. On the basis of these needs, the resulting impacts will be assessed. These will include the cost and availability of materials (including the need for imports), manufacturing capability, new facilities and tooling, capital requirements, impact on service and repair industries, impact on labor, impact on the fuels industry (including capital, distribution, and environmental concerns), and balance of trade considerations.

For this activity, the work will be broken down as follows. Of the $1.2 million cited above, approximately $500 thousand will be used for evaluating power plants (conventional engines, regeneration, batteries, fuel cells, transmissions) and vehicle design (materials crashworthiness, handling, noise, emissions, damage ability, and repair ability). Another $400 thousand will be used for the motor vehicle industry, supplier industry, and fuels industry analyses. Finally, $300 thousand will be used for the national economic analyses.

Of course, the PNGV companies, Ford, Chrysler, and General Motors, would be responsible for the bulk of the vehicle specific marketing and economic studies since they will ultimately be responsible for producing and selling their vehicles.

Question. What PNGV materials and designs will be ready to study during FY 1997?

Answer. During the first part of FY 1997, the major effort will be focused toward developing the fleet model with which the Partnership for a New Generation of Vehicles will be evaluated. However, in addition to vehicle models representing the fleet being developed, models of the selected PNGV platform vehicles will be developed. These production models will be modified to incorporate the promising technologies under consideration. To date, as identified in the National Research Council's report, *Review of the Research Program of the Partnership for a New Generation of Vehicles, Second Report*, the likely structural materials to be considered are the high strength steels, composites, and aluminum.

Question. NHTSA intends to initiate research in the area of lightweight materials such as advanced composites. What will this research accomplish? Why is this an activity that should be supported by NHTSA, instead of DOE or some other partner in the PNGV?

Answer. To date, the suppliers involved in the Partnership for a New Generation of Vehicles program have suggested the use of the newer high strength steels, aluminum, and advanced composites as the lightweight materials of choice. There are various aspects to the research required to be undertaken for these lightweight materials. For example, the industry is concerned about the manufacture ability of the aluminum and the advanced composites. This will be examined by DOE or some other PNGV partner. However, with respect to modeling and analyzing the crash safety behavior of the higher strength steel, aluminum, and the advanced composites, research is necessary for identifying the underlying dynamic deformation characteristics so that these materials can be modeled properly by the finite element computer codes. This is one area of activity that NHTSA will be supporting as part of its safety assessment.

Question. Have any FY 1996 funds been allocated for the PNGV? For which purposes? How much? What amount was requested in the FY 1997 budget?

Answer. We have partly funded the National Research Council's peer review of the Partnership for a New Generation of Vehicles program using $75 thousand in FY 1996. In the FY 1997 budget request, $5 million was requested for PNGV, including $300 thousand for the peer review.

Question. What efforts has NHTSA made to use data and techniques developed by others to model auto crashes?

Answer. Computer models are now the principal vehicle design technique used by the manufacturers. Accordingly, their modeling methodology, computer codes, design detail, etc., are considered extremely proprietary and confidential. Further, they vary widely in their complexity and utility. A number of efforts have been made to obtain the models developed by the manufacturers for use in the Partnership for a New Generation of Vehicles and other safety research programs. To date, we have had limited success in obtaining the models and/or portions of the models. The major concerns that the manufacturers have expressed regarding public release of these models is the potential that they would be used in litigation and that their confidential modeling techniques and design details would be used by competitors. To achieve its goal of constructing a fleet of the different types of vehicle models and to provide a benchmark of the safety of PNGV or other future vehicles, NHTSA must have models with full public disclosure. Accordingly, we anticipate the need to develop these models independently from the manufacturers. We have received and expect to continue to receive their help in debugging the models and in improving their accuracy.

Question. Please break down in detail the expected use of funds for technical and administrative support activities requested in FY 1997 under LGOE for NHTSA's ITS program. Is NHTSA counting expenditures that are already taken into account in the NHTSA request?

Answer. The breakdown of support funding is:

Type of support	Source	Amount
Technical support for evaluation of systems, development of performance specifications, and test procedure development	NHTSA's Vehicle Research and Test Center (VRTC)	$650,000
Technical support for evaluation of operational tests, development of performance specifications, computer modeling, and analyses	Volpe National Transportation Systems Center	$1,000,000
VRTC laboratory fund for equipment and supplies	VRTC	$160,000
Administrative support	Various contractors and suppliers	$590,000
Total		$2,400,000

NHTSA is not counting expenditures that are already taken into account in the NHTSA request.

Question. Please specify in detail the amount to be spent on benefit/cost studies related to the ITS program activities in FY 1997 and do the same for FY 1998.

Answer. Projects related to benefits and costs of ITS collision avoidance systems are:

Subject	Amount
Evaluation of the Passenger Car Intelligent Cruise Control Operational Test	400,000
Evaluation of the Heavy Vehicle Intelligent Cruise Control Operational Test	400,000
Evaluation of the Automatic Collision Notification Operational Test	$378,000
Use of the System for Assessment of the Vehicle Motion Environment (SAVME)to gather information on baseline driving conditions for lane change/merge, rear end and road departure collisions	$500,000
Use of the Data Acquisition System for Crash Avoidance Research (DASCAR)to gather information on baseline driving conditions for lane change/merge, rearend and road departure collisions	$500,000
Development of methodologies for predicting the number of collisions that would occur in real-world operation of vehicles based on the number of "near-misses" experienced in operational tests	$500,000
Study of the "cost drivers" in ITS collision avoidance systems	$200;000

The amount of funding needed for these studies in FY 1998 has not yet been determined.

Question. Please compare the costs and benefits of NHTSA's acquiring its own computer capability for simulating crash testing to using computer facilities available through the Department of Energy. Please include in the analysis such factors as hardware costs, software costs, staff time and costs, data transfer and ease of access for each alternative.

Answer. The DOE Oak Ridge National Laboratory (ORNL) is providing NHTSA researchers access to their computing facility through their Center for Computational Sciences (CCS) facility. This access is being provided at a cost of $75 thousand for FY 1996, and allows NHTSA staff only limited access to their Paragon parallel computing facilities. We have experienced difficulty operating on the CCS machines due to the fact that our simulations generate files containing several hundred megabytes of output per run, which is extremely impractical to download or analyze over our network connection. The only practical method we have managed for accessing the data generated is to have tapes generated containing the output files and mailed to NHTSA. This introduces a considerable delay to our simulation process. For example, a typical simulation will run for 24 hours on the ORNL Paragon machines; but, it takes 24 to 48 hours to actually get the data to Washington, DC.

The logistics for receiving the output files has been acceptable to date due to our current level of activity in computer simulations. However, when we initiate our support for the PNGV program, we anticipate having to make hundreds of simulation runs and needing immediate access to the output files. It is for this reason that we desire to purchase a small parallel computer system at NHTSA.

An additional benefit would allow NHTSA researchers more control over our simulation runs. Our access at ORNL is limited in that our runs can always be "bumped" for other ORNL applications. The costs of parallel machines have dropped significantly in recent years; and since our primary application is now supported on the lower end parallel machine, it is clearly appropriate to provide a more consistent and integrated environment for NHTSA researchers.

Hardware costs for a parallel computer, in the class of an SGI Power Challenge, would be between $600 thousand and $1 million depending upon the number of CPU nodes purchased for the machine. This would provide very good performance, would eliminate the data transfer concerns, and would greatly simplify our operating environment as everything could be conducted on a single machine. The software costs are minimal, since we would normally only run a single commercial application, LS-DYNA3D.

Question. How much is needed for the Transportation Research Board to review the PNGV program? Wouldn't it be appropriate for the Department of Energy and the Department of Commerce to assume these expenses, or at least to participate in their funding?

Answer. DOC has contributed $75 thousand in FY 1994 and $75 thousand in FY 1995 for the peer review. For the third review of the Partnership for a New Generation of Vehicles program to be completed by spring of 1997, the National Research Council (NRC) has requested $250 thousand. This has been funded by transfer to NHTSA of $125 thousand each from DOC and DOE. The FY 1997 budget request includes $300 thousand for the peer review. At the time this budget request was formulated, we agreed to include the peer review funding request in our budget submission. At this time, we do not know the exact funding which will be needed by NRC for the peer review after March 31, 1997, or what the sources or availability of that funding would be.

OFFICE OF THE ADMINISTRATOR AND STAFF OFFICES

Question. Are any of the projected cost increases due to anything other than inflation?

Answer. As part of the continuing effort to provide more traffic safety and health information to the public and to meet increasing customer demand, the agency's calls and requests for print materials have increased significantly. In order to process the additional calls, it is necessary to upgrade the existing communications lines in the field and install additional lines at headquarters. The agency will need to increase the number of printed copies of publications, particularly those related to child safety seats, air bags, vehicle recalls, and motor vehicle defects reporting. Additional communications funds will be required for postage and shipping in order to satisfy the public's increased demands for publications. Computer Support funds will be required to improve the public's access to safety and health information by increasing the capacity of existing hardware and providing enhanced search capability via the Internet to allow direct retrieval of pertinent auto, safety and statistical information.

Other Computer Support increases will provide support for network improvements to process the increasing volume of traffic due to increasing public and internal access to electronic files and data; the increase in the development of electronic data interchange (EDI) and electronic commerce (e.g. using the Internet to make data available to the public); integration of client/server technology to reduce network overhead and increase agency-wide efficiency by the development of electronic form, workflow and application tools; (linking individual computers to the network increases staff's ability to access data and decreases entry efforts and related error rate); and video conferencing capability to link state offices together reducing the need for travel.

The increase in Other Services will support Departmental centralization of docket services, imaging efforts and the capability to transmit data/images between headquarters and regional staff, including state offices, and increases to the Working Capital fund.

Question. Why is there a need for $325K for strategic planning? Why can't this activity be conducted by NHTSA staff?

Answer. NHTSA staff do in fact perform most of the strategic planning functions in house. However, with reduced staffing levels, expanded responsibilities (Government Performance and Results Act (GPRA) and National Performance Review (NPR)), and no funding provided in the FY 1996 budget, a significant level of support is needed for strategic planning.

As a result of Congress zeroing out funding for Strategic Planning in FY 1996, we were not able to get fully underway with the revisions to our Strategic Plan to bring it into conformance with the GPRA. A Strategic

Plan is required under the provisions of that Act by September, 1997. In addition, revisions to the SEP will be needed to align it with the revised Strategic Plan. The Strategic Plan includes broad goals and objectives while the SEP includes milestones and performance measures systematically laid out to support achievement of the strategic goals and objectives. Funding will be used for contract support to complete an assessment of real world factors that will affect highway and motor vehicle safety into the first part of the 21st century and to facilitate consideration of these trends by the leadership and staff of the agency in developing the revised plans. In addition, NHTSA currently does not have the capability to effectively track the measures in the GPRA and SEP on an electronic basis. The planning and design of the system is being done by in-house staff. However, programming support is needed for software development. The Office of Plans and Policy will need to contribute to the support of this development.

To provide a baseline for the assessment of future safety problems, a model of the most critical current safety problems, based on numbers of injuries and crashes and their costs, is being developed through in-house staff work (Strategic Plan Goal 2). However, some support will be needed to work with NHTSA's partners to publish a national agenda for addressing the most significant highway safety problems.

Support also will be needed to respond to other GPRA requirements. Our participation as a GPRA pilot has been conducted exclusively in house by NHTSA staff and our products have gotten very high marks. However, recent reviews of the experience of the GPRA pilot phase by OMB and GAO have indicated that our program performance measures need to be more outcome oriented. We need to address this problem quickly by initiating a project in FY 1997 that will assess best practices for performance measures in some of our key areas: rulemaking, enforcement activities, research and development.

For the achievement of Strategic Plan Goals 8 through 11 (Transform NHTSA Through Continuous Improvement), the Strategic Planning Division provides in-house staff support to agency teams working on process improvements. Major processes currently being addressed by cross-agency teams are: the rulemaking process, the contracts and procurement process, customer service, and the correspondence control process. Already it has been estimated that SPD support for these and other teams in the agency has saved over $125,000. The resources to support this Strategic Planning initiative will be used for our membership in and activities of the Council for Continuous Improvement, which provides access to best practices in both the private and government sectors, and materials and other support. These activities also support the agency's streamlining goals to do more with a smaller staff and to meet our reduction numbers by 1999.

Question. What methodologies will be used to quantify the psycho-social effects of vehicle injuries? How will the results of quantifying the psycho-social effects of injuries enter into NHTSA's decision making process?

Answer. The plan for the development of a method to quantify the psycho-social effects of motor vehicle crashes is based on the hypothesis that surrogate measures of the psycho-social effects of motor vehicle injury are available, and that the population involved in crashes exhibits differences in these measures when compared to the population not involved in crashes. These problems are believed to have a large societal effect in addition to the economic and functional losses associated with injury, especially when it appears that some people who are not involved in the crash experience significant effects. For example, families in which a child is killed as result of a motor vehicle crash are known to have a higher divorce rate than the general population. There is also evidence that chemical abuse increases for people involved in crashes, and school performance decreases for siblings of injured children. A working hypothesis has been developed and a detailed literature search will begin in July 1996. The detailed literature search will determine if other approaches are available, and assuming the hypothesis is upheld, which psycho-social data are readily available. Based on these results, a work statement will be prepared for funding in FY 1997. As presently conceived, the FY 1997 effort will survey people involved in motor vehicle crashes to determine what psycho-social effects they experienced. This will then be compared to data on the general population based on the literature.

The results of the survey will be used in the agency's decision making process in the same way as measures of societal costs and functional limitations are used, to determine the relative benefits of a proposed action. Theoretical work by the agency indicates that the combination of societal costs, functional limitations and psycho-social effects adequately covers the practical range of effects.

Question. Please break down the uses of the additional $124,000 requested for the Office of the Administrator Operating Expenses.

Answer. The additional $124,000 requested for the Office of the Administrator operating expenses is only an allocation of the total increase in NHTSA's Operating Expenses. These costs include, but are not limited to, personnel related expenses (such as training and permanent change of station), printing, communications, computer support, and payments to the Working Capital Fund. The allocation is calculated based on the total headquarters and mission support authorized full-time permanent positions and the total headquarters operating expenses.

The total headquarters operating expenses were increased in the object classes of training, rent and communications, printing and reproduction, other services, and computer support. As a result of these increases, the average operating expense cost per headquarters and mission support employee increased.

Question. For each of the different components of the NHTSA budget, please provide a table similar to last year's Senate hearing resord for the past two fiscal years and FY 1997 which shows the amount of funds spent or allocated for awards, bonuses, and overtime pay.

Answer. The information is in the following table:

Funding for Overtime/Bonuses and Awards

	FY 1995 Enacted	FY 1996 Enacted	FY 1997 Request
	(dollars in thousands)		
Safety Performance			
Overtime	0	0	1
Bonuses/Awards	63	80	82
Subtotal	63	80	83
Safety Assurance			
Overtime	24	24	25
Bonuses/Awards	68	84	86
Subtotal	92	108	111
Highway Safety Program			
Overtime	5	5	6
Bonuses/Awards	146	182	188
Subtotal	151	187	194
Research and Analysis			
Overtime	0	0	0
Bonuses/Awards	73	94	97
Subtotal	73	94	97
Office of the Administrator			
Overtime	4	4	4
Bonuses/Awards	49	58	60
Subtotal	53	62	64
General Administration			
Overtime	32	33	34
Bonuses/Awards	87	113	117
Subtotal	119	146	151

Grand Total			
Overtime	65	66	70
Bonuses/Awards	486	611	630
Subtotal	551	677	700

Question. Please prepare a table similar to last year's Senate hearing record indicating the amount of funds for computer support and a separate chart for communication systems for each of the last three fiscal years and proposed for FY 1997.

Answer. The following tables show the funding for computer support and communication systems for the last three fiscal years and proposed for FY 1997:

COMPUTER SUPPORT
(Dollars in Thousands)

	FY 1993	FY 1994	FY 1995	FY 1996	FY 1997 Proposed
Computer Support	$2,150	$2,042	$2,552	$2,711	$3,211

COMMUNICATIONS SYSTEMS
(Dollars in Thousands)

	FY 1993	FY 1994	FY 1995	FY 1996	FY 1997 Proposed
Communications Systems	$284	$298	$312	$330	$375

Question. Please provide tables similar to those in last year's Senate hearing record on operating expenses, personnel compensation, and benefits combined with operating expenses for each major NHTSA program. Please compare the FY 1996 appropriation with the FY 1997 request.

Answer. The information is on the following table:

SALARIES AND EXPENSES
(in thousands of dollars)

	FY 1996 Appropriation	FY 1997 Request	Change
Use of Funds			
Personnel Compensation			
Permanent positions	$37,666	$37,915	$249
Other than permanent positions	1,620	1,631	11
Other	1,215	1,223	8
Total, Salaries	40,501	40,769	268
Personnel Benefits	7,147	7,195	47
Total, Salaries and Benefits	47,648	47,964	316
Travel	972	1,022	50
Total, Salaries and Expenses	48,620	48,986	366

Allocation to Programs			
Safety Performance			
Salaries and Benefits	$6,816	$6,859	$43
Travel	57	60	3
Subtotal	6,873	6,919	46
Safety Assurance			
Salaries and Benefits	7,390	7,436	46
Travel	90	95	5
Subtotal	7,480	7,531	51
Highway Safety Programs			
Salaries and Benefits	14,574	14,630	56
Travel	586	616	30
Subtotal	15,160	15,246	86
Research and Analysis			
Salaries and Benefits	9,470	9,529	59
Travel	133	140	7
Subtotal	9,603	9,669	66
Office of the Administrator/Staff Offices			
Salaries and Benefits	2,941	3,012	71
Travel	66	69	3
Subtotal	3,007	3,081	74
General Administration			
Salaries and Benefits	6,457	6,498	41
Travel	40	42	2
Subtotal	6,497	6,540	43
NHTSA			
Salaries and Benefits	47,648	47,964	316
Travel	972	1,022	50
Total	48,620	48,986	366

	FY 1996 Appropriation	FY 1997 Request	Change
Use of Funds			
Headquarters operating expenses			
Personnel-related costs	$355	$375	$20
Administrative services	5,651	6,441	790
Computer support	2,713	3,211	498
Subtotal, headquarters	8,719	10,027	1,308
Field operating expenses*	1,610	487	(1,123)
Total, operating expenses	10,329	10,514	185
Allocation to Programs			
Safety Performance			
Headquarters expenses	**$1,415**	**$1,704**	**$289**
Safety Assurance			
Headquarters expenses	**1,824**	**1,812**	**(12)**
Hotline*	**320**	**0**	**(320)**
San Angelo*	**356**	**0**	**(356)**
Subtotal	**2,500**	**1,812**	**(688)**
Highway Safety Programs			
Headquarters expenses	**1,951**	**2,260**	**309**
Field expenses (Regions)	**477**	**487**	**10**
Subtotal	**2,428**	**2,747**	**319**
Research and Analysis			
Headquarters expenses	**1,579**	**1,901**	**322**
Vehicle Research & Test Center*	**777**	**0**	**(777)**
Subtotal	**2,356**	**1,901**	**(455)**

Office of the Administrator/Staff Offices			
Headquarters expenses	611	735	124
General Administration			
Headquarters expenses	1,339	1,615	276
NHTSA			
Headquarters expenses	8,719	10,027	1,308
Field expenses	1,610	487	10
Total	10,329	10,514	185

*In an effort to more accurately portray total program costs, the FY97 budget includes the operating costs for the Hotline and San Angelo in the Safety Assurance program and VRTC in the Research and Development program.

Question. Please provide a listing of Schedule C employees currently on board, by Title, Salary, Office and Location.

Answer. There are three Schedule C employees on board as of June 1996: Director of Intergovernmental Affairs, $75,935, Office of the Administrator, Washington, DC; Special Assistant to the Deputy Administrator, $73,486, Office of the Deputy Administrator, Washington, DC; and Chief, Consumer Affairs Division, $78,385, Office of Public and Consumer

Question. Please provide a table similar to that of last year's Senate hearing record regarding positions and finding for the Office of the Administrator and staff offices.

Answer. The information is on the following table:

OFFICE OF THE ADMINISTRATOR AND STAFF OFFICES
POSITIONS* AND FUNDING, FISCAL YEARS 1995 - 1997
(DOLLARS IN THOUSANDS)

	1995		1996		1997	
	POSITION	FUNDING	POSITION	FUNDING	POSITION	FUNDING
Office of the Administrator	4	383	4	353	4	372
Deputy Administrator	2	176	2	176	2	186
Executive Director	2	176	2	176	2	186
Intergovernmental Affairs	1	88	1	88	1	93
International Harmonization	2	176	2	176	2	186
Executive Secretariat	6	529	6	529	6	558
Civil Rights	4	357	4	353	4	372
Public and Consumer Affairs	12	1,078	12	1,059	12	1,117
Chief Counsel	30	2,659	30	2,647	30	2,792
Less Mission Support	-22	(1,939)	-22	(1,941)	-22	(2,048)
Total	41	3,683	41	3,618	41	3,816

*Reflects authorized positions

Question. Please prepare a table, similar to last year's Senate hearing record, indicating costs for permanent change of station and provide a table of the number of people moved and associated expenses for each of the last three years and the amount requested for FY 1997.

Answer.

Permanent Change of Station Data

Fiscal Year Moves	Amount Budgeted	Number of Moves	Average Cost Per Move
1994	$60,000	3	$20,000
1995	60,000	0	n/a
1996	88,000	6	20,000
1997 est.	88,000	3	30,000*

*NOTE: Inflation has caused an increase in the average cost of each permanent change of station move.

Question. Please provide a table showing the amounts authorized for computer support for each of the last five years.

Answer. The following table shows the funding for computer support for the last five fiscal years:

COMPUTER SUPPORT
(Dollars in Thousands)

	FY 1992	FY 1993	FY 1994	FY 1995	FY 1996
Computer Support	$1,610	$2,150	$2,042	$2,552	$2,711

OFFICE OF INSPECTOR GENERAL

PREPARED STATEMENT OF A. MARY SCHIAVO, INSPECTOR GENERAL

Mr. Chairman and Members of the Subcommittee, it is my pleasure to present to you an overview of the Office of Inspector General (OIG), Department of Transportation (DOT) budget request for Fiscal Year (FY) 1997, as well as our accomplishments over the last year and our current and future oversight priorities.

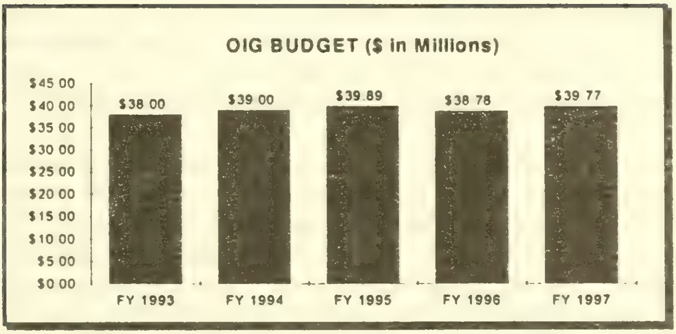
OIG BUDGET HIGHLIGHTS

The OIG's FY 1997 budget request of $39.771 million reflects the cost of fulfilling OIG's statutory oversight responsibilities within the Department. This request, which is a net increase of $987,000 above our FY 1996 enacted appropriation level, will allow OIG to fund congressionally-mandated pay raises, law enforcement availability pay, and benefits associated with compensation increases.

Although OIG plans to hold most operating costs at the FY 1996 estimated levels, FY 1997 operating costs are projected to be $123,000 above the FY 1996 estimated levels. This increase is due to a $137,000 increase in OIG's workers' compensation costs, a $24,000 increase in Working Capital Fund (WCF) costs, and a $22,000 increase in travel costs to fund additional government-owned cars for OIG's special agents. For other operating costs, OIG will effect decreases totaling $60,000. Further, OIG continues to closely track all expenditures and to implement cost-cutting measures, whenever possible.

The FY 1997 request includes $1.931 million for the Defense Contract Audit Agency (DCAA) audits. However, since this amount is not enough to cover projected costs of those audits, DOT's FY 1997 appropriation request would provide the Operating Administrations with the ability to fund the additional DCAA costs associated with their audit requirements.

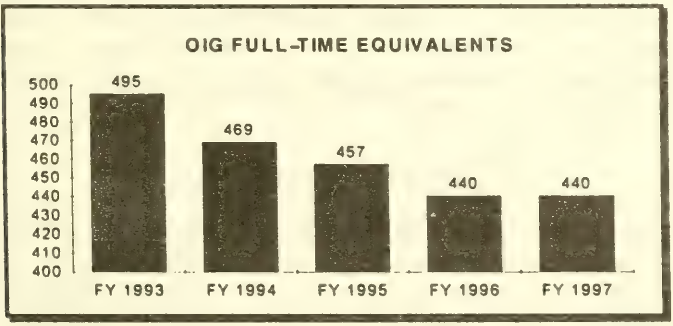
The following chart illustrates the OIG's budgets (both enacted and requested) for FYs 1993-1997.



STAFFING & STREAMLINING GOALS

OIG continues its downsizing initiatives in support of the National Performance Review (NPR) goals. Between FYs 1993 and 1996, OIG reduced its overall staffing level from 495 full-time equivalents (FTE) to 440 FTEs, exceeding the NPR goal of 442 FTEs by FY 1999. The OIG's FY 1997 budget request of $39.771 million will continue to support 440 FTEs.

The following chart shows the decreases in OIG's overall staffing level since FY 1993.



In addition to OIG's overall staffing reduction, we also reduced supervisory personnel through organizational consolidations, reclassifications of positions (supervisory to non-supervisory), elimination of multiple supervisory positions, and closure of field offices. These actions resulted in a 32-percent reduction in the number of supervisors from FY 1994 to FY 1995. This reduction also raised the employee-to-supervisor ratio from 4.2 to 6.1 and decreased the percentage of supervisors from 18.9 to 13.6 percent of total OIG staff.

The two staff classification series OIG must reduce by 50 percent as mandated by the NPR, are personnel and budget. Personnel staff have already been reduced by 50 percent in FY 1995. Budget staff are scheduled to meet the 50-percent reduction in FY 1996.

OIG has also undertaken a number of actions to streamline operations, reduce costs, and improve responsiveness. Consistent with the NPR recommendations to streamline administrative support functions, OIG continues its decentralization of administrative functions by empowering its managers through enhanced delegation of authority. For example, OIG issued regional managers government VISA purchase cards, through which they now procure nearly all goods and services necessary to support operations in their offices. Similarly, in the area of reducing internal policies and procedures, OIG has exceeded NPR's stated goal of a 50-percent reduction by attaining a 90-percent reduction.

We continued our sponsorship of employee task forces as a method of improving the overall operation of our organization. An Office of Legal Counsel was established to provide independent and timely resolution of OIG legal issues. OIG produced and is now distributing a brochure to DOT employees which helps us to better serve our customers. The brochure describes our oversight role with respect to the Department and Congress, and the responsibilities and rights of DOT employees in connection with an OIG audit, inspection, evaluation, or investigation. Each of the initiatives I have just identified helped to empower and involve our employees and to better use their talents and ingenuity.

FY 1995 ACCOMPLISHMENTS

During FY 1995, we made significant contributions toward identifying programs and operations needing improvement in DOT, and, in turn, helped prevent fraud, waste, and abuse.[1] For example, the Office of Assistant Inspector General for Auditing identified savings of $1.6 billion, and management made commitments to save $945.7 million. The Office of Assistant Inspector General for Inspections and Evaluations produced 13 reports, completed 32 projects, and responded to 5 congressional requests and 25 general referrals. Actions taken by the Office of Assistant Inspector General for Investigations resulted in 158 indictments; 105 convictions; and fines, court-ordered restitutions/civil judgments, and Federal and state recoveries totaling $52.2 million.

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[1] For a detailed description of FY 1995 accomplishments, see the OIG's Semiannual Reports for the periods October 1, 1994 - March 31, 1995 and April 1, 1995 - September 30, 1995.

The following tables provide a statistical overview of OIG's accomplishments for FY 1995 regarding audits, inspections and evaluations, and investigations.

Audit Results	
Number of Reports Issued	968
Costs Questioned	$110 *
Costs Unsupported	$71 *
Funds To Be Put To Better Use	$1,531 *
Number of Reports Resolved	368
Costs Questioned Resolved	$85 *
Costs Questioned Sustained	$18 *
Funds To Be Put To Better Use Resolved	$1,018 *
Funds To Be Put To Better Use Sustained	$892 *

* Dollars in millions.

Inspection and Evaluation Results	
Number of Reports Issued	13
Number of Projects Completed	32
Congressional Requests Processed	5
General Referrals Processed	25

Investigative Results	
Indictments	158
Convictions	105
Fines	$5.8 *
Court Ordered Restitution/Civil Judgments	$0.8 *
Federal Recoveries	$43.0 *
State Recoveries	$2.6 *
Years Sentenced	66
Years Probation	249
Debarments and Other Administrative Actions	102
Cases Closed[2]	164
Hotline Complaints Received	424
No Action Required	53
Actions Taken	371

* Dollars in millions.

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[2] Figures represent reactive investigations where all investigative and administrative efforts have been completed and the investigations were closed with no action.

Our Office of Assistant Inspector General for Auditing: (1) identified problems in several areas at the Federal Aviation Administration (FAA) including the Advanced Automation System (AAS) Program, handling of employee relocation payments, abuses of the Federal Workforce Restructuring Act of 1994, travel abuses involving free access by FAA personnel to commercial airliners, and continuance of obsolete "revitalization pay" for air traffic controllers; (2) continued oversight of Boston's Central Artery/Third Harbor Tunnel (CA/THT); and (3) identified $585 million in excess liquidating assets in Maritime Administration's (MARAD) Federal Ship Financing Fund which could be put to better use. These assets were transferred to the General Fund of the U.S. Treasury, thereby enabling better use of the funds.

We continued our examination--as originally directed by Congress in 1993--of FAA's AAS Program, and issued four audit reports on the program during FY 1995. In one report, OIG examined issues related to the Display System Replacement (DSR) and the High Availability Tower Control Computer Complex (HAB TCCC). As a result of the audit, FAA provided the Deputy Secretary with a list of all known DSR requirements and included these capabilities in the DSR baseline before hardware is delivered to the FAA Technical Center in June 1996. FAA completed a detailed cost and schedule comparison involving HAB TCCC and concluded savings were possible but may cause the program schedule to be extended by over 2 years. Finally, FAA provided the Transportation Systems Acquisition Review Council with written approval at the Associate Administrator level of the current HAB TCCC Requirements Specification.

In another report on the AAS Program, we addressed FAA's funding for the limited production of AAS common consoles. After an audit by the DCAA and a review of AAS Program documents, we concluded FAA did not follow congressional direction by spending funds for the limited production of common consoles. FAA concurred and reported the matter to Congress.

We audited FAA to determine whether adequate controls existed to ensure permanent change of station (PCS) moves were necessary, cost effective, and in the best interests of the Government, and also, whether FAA's plan to reduce costs and improve controls over PCS moves was operating efficiently. Our audit found FAA did not have adequate controls governing PCS moves and had not fully implemented its plan to reduce PCS costs. In monetary terms, FAA could save $18.4 million in PCS funds at Denver and Chicago by adhering to its overall policy of requiring employees to move at least 35 miles. We also found FAA has expended or obligated $525,855 to move employees who were not entitled to PCS benefits. FAA agreed with our conclusions and has already acted on some of our recommendations and plans to act on the others.

OIG audited whether DOT complied with the Federal Workforce Restructuring Act of 1994 (the Act) and, specifically, whether FAA allowed employees who took voluntary separation incentive payments (buyouts) to return to work for FAA as contract employees. Our audit looked at 20 former FAA employees. We found FAA had allowed 17 of these former employees to return under FAA contracts, doing work previously done either by these same former employees or by other FAA employees who had also taken buyouts. These findings indicated FAA and former employees had violated the Act, and the incentive payments totaling $425,000 for these 17 employees should be recouped. Based on our recommendations, FAA and OIG have initiated a joint effort to screen, identify, and evaluate the buyouts on a case-by-case basis to identify situations where buyout employees have returned to work for FAA as contractors. If violations of the Act are discovered, steps will be taken to recoup incentive payments and terminate contracts.

OIG examined whether FAA had adequate controls over the programs which permit FAA personnel free access to commercial airlines. Our report found abuses in these programs in that personnel used the free transportation for personal gain. Though these actions resulted in no monetary loss to the Government, they violated standards of ethical conduct and reflected negatively on FAA. FAA concurred with some of our recommendations and intends to study other recommendations before deciding on a course of action.

In another audit of FAA activities, OIG reviewed the "Revitalization Pay" Program implemented to rebuild the system after the 1981 air traffic controllers strike. OIG concluded that FAA continues to pay revitalization pay even though it is no longer needed. After the strike, unprecedented hiring and training efforts were undertaken to rebuild the controller work force. According to FAA's May 1994 Report to Congress on Air Traffic Controller Staffing Requirements, the work force has been rebuilt and FAA's efforts are now focused on stabilizing staffing levels. However, FAA has paid over $84 million in revitalization pay in each of the last 2 fiscal years to over 29,000 employees, most of whom were not working for FAA at the time of the strike. These payments have even been made to air traffic controllers who were fired for striking and have since been rehired. This occurred even though the controller work force had matured in terms of numbers and controller experience, attrition rates were low, and there was a large controller applicant pool. Additionally, controller compensation packages have significantly increased since the strike, further reducing the need for this special incentive. FAA has recently announced plans to rehire several hundred more former controllers who were fired as a result of the strike. Since FAA was developing a new personnel management system, OIG recommended FAA eliminate revitalization pay, as well as any other unnecessary and outdated premium pay packages in its new system.

Boston's CA/THT project continues to be the largest highway project in the country. We continued our oversight work and completed two reports on the project during FY 1995. In the first report, we evaluated the adequacy and effectiveness of the Federal Highway Administration's (FHWA) oversight of construction contract change orders and extra work orders to assure reasonableness of pricing and proper justification for charges. Our audit disclosed management control weaknesses in the change order approval process which meant FHWA had no assurance $2.2 million of contract change orders were properly justified prior to their approval. Our second report examined the issue of Federal funds to pay for police traffic details on CA/THT. We found Massachusetts to be the only state which uses police traffic details, exclusively, to direct motorists at construction sites. In response to an inquiry from OIG in March 1995, an FHWA official estimated $25 million in Federal funds had been obligated for police flagging services on CA/THT over the past 3 years. This is about $8 million per year or about $80 million over the life of the project based on the current estimate of 10 years to complete CA/THT, including an inflation factor. FHWA concurred with our findings and identified corrective actions.

In other actions which occurred during FY 1995, the Office of Assistant Inspector General for Auditing, as required by the Chief Financial Officers Act of 1990, audited seven financial statements from organizations and agencies within DOT including: (1) FAA; (2) U.S. Coast Guard (USCG); (3) Federal Railroad Administration; (4) MARAD; (5) the Highway Trust Fund involving activities of FHWA, Federal Transit Administration (FTA), and National Highway Traffic Safety Administration; (6) Volpe National Transportation Systems Center, which is part of the Research and Special Programs Administration (RSPA); and (7) the Office of the Secretary of Transportation. The audits disclosed 60 reportable internal control structure deficiencies and 10 instances of noncompliance with applicable laws and regulations, including one noncompliance involving $585 million in MARAD's Federal Ship Financing Fund. The reporting entities used the results of the audit field work to make their respective statements more precise and comprehensive. We identified material discrepancies and noncompliance issues, prompting over $9.1 billion in account balance adjustments for the FHWA and FTA Highway Trust Fund, the FAA Airport and Airway Trust Fund, and the USCG Oil Spill Liability Trust Fund. Additionally, FAA added an additional $3.1 billion in footnote disclosures to its financial statements.

Our Office of Assistant Inspector General for Inspections and Evaluations handled a range of projects in FY 1995. In response to airline complaints directed to DOT, OIG completed an inspection of the validity, relevance, and accuracy of airline financial and statistical data in the Airline Data Collection and Reporting Program. At the time of our inspection, RSPA had responsibility for the program. That responsibility has now moved to the Bureau of Transportation Statistics (BTS). The program gathers airline data and provides the Government and the public with airline financial and statistical information. OIG's inspection found problems affecting the program's ability to deal with matters such as policy concerns raised by emerging airline issues, multinational carrier alliances, and ticketless booking of airline reservations. To remedy problems with the program, OIG recommended RSPA reevaluate data requirements, develop a plan for validating data, establish a clear policy for withholding financial information, and develop internal management controls and operating procedures. We are now awaiting a plan from BTS regarding the implementation of our recommendations.

The Office of Assistant Inspector General for Investigations proactively investigated cases involving Suspected Unapproved Parts (SUPs); evasion of motor fuel excise taxes (MFET); and safe handling, transportation, and disposal of Hazardous Material (HAZMAT); and we achieved positive results in each of these three areas. For example, since its inception, our SUPs work, cumulatively, has produced 173 indictments, 133 convictions, and $48.8 million in fines, restitutions, and recoveries. These cumulative statistics for SUPs translate to 90 years of imprisonment and 322 years of probation for those convicted of Federal crimes associated with SUPs. During FY 1995 alone, our SUPs work yielded 49 indictments; 31 convictions; and over $19 million in fines, restitutions, and recoveries. In May 1995, I testified before the Senate Committee on Governmental Affairs, Subcommittee on Government Management and the District of Columbia, Senator William S. Cohen, Chairman, presiding. In response to the hearing and our work, FAA formed a task force to examine the bogus parts problem.

Another area in which we achieved positive results in FY 1995 was investigations of MFET evasion. Investigations in which OIG participated yielded 57 indictments; 15 convictions; and $489,000 in fines, restitutions, and recoveries; and resulted in nearly 25 years of prison and 38 years of probation for those convicted of violating MFET statutes. In the largest MFET evasion indictment in U.S. history, 25 persons were charged with defrauding the FHWA's Trust Fund of more than $133 million in tax revenues and the State of New Jersey of $11 million. Other charges included money laundering, wire fraud, tax evasion, extortion, and a currency reporting violation. If convicted on all counts, the defendants face substantial Federal prison terms, fines, restitution, and forfeitures.

A third area which continued to receive our attention was HAZMAT and its safe handling, transportation, and disposal. During FY 1995, our work produced 18 indictments; 6 convictions; and fines, restitutions, and recoveries of $249,000.

We completed a major investigation predicated on a complaint received by the Secretary of Transportation in 1993, regarding nontechnical training conducted at the FAA's management training facility in Palm Coast, Florida. Allegations had been raised regarding a contractor's training techniques, relationship with FAA and the Department, personal relationships with FAA employees, and training conducted at the FAA training facility. We committed significant investigative, audit, and evaluation resources to address these allegations. Our investigation identified at least 15 areas of complaints and controversies involving the contractor. After a 2-year investigation which disclosed contracting violations, serious lapses in the FAA's management of its executive training program, and an ethical breakdown in the relationship between the contractor and a number of senior FAA officials, we issued a 600-page report and made separate recommendations to the Secretary. Our recommendations resulted in the Department ceasing all contracting with the subject contractors, administrative actions being taken with respect to culpable FAA personnel, the adoption of administrative recommendations by the Secretary, programmatic changes in departmental management training, and a hearing convened by the House Appropriations Subcommittee on Transportation. Furthermore, our investigation resulted in one contractor entering a felony plea, culminating in a sentence of six months incarceration in a Federal correctional institution and a $5,000 fine.

In addition to discovering problems and deficiencies in a number of programs and operations within DOT, our oversight work also identified numerous programs and operations within DOT that worked well during FY 1995. Highlights and details of these appear in our Semiannual Reports to the Congress for FY 1995.

FY 1996 PRIORITIES

Our guiding principle in setting priorities for FY 1996 is simple. We will continue to fulfill our oversight role for the Department, as that role is defined in the Inspector General Act of 1978, and to carry out our responsibilities to Congress and the American people. We will work to stop fraud, waste, and abuse in the use of precious tax dollars.

OIG will focus on areas we identified in our Semiannual Report to Congress for the period ending September 31, 1995. These areas include: (1) DOT's restructuring and funding; (2) safety oversight, with emphasis on several FAA programs and functions, and on FRA oversight; (3) operation and maintenance of FAA's present and future air traffic control systems; (4) financial management system controls within DOT; (5) major acquisitions in FAA and USCG; (6) personnel management in FAA; (7) contract administration; and (8) transportation of hazardous materials.

QUESTIONS SUBMITTED BY SENATOR HATFIELD

ACCOMPLISHMENTS

Question. Please provide a comparison of the Office of Inspector General's accomplishments for fiscal years 1994, 1995, and 1996 in tabular form, similar to that found on page XVII of the Fiscal Year (FY) 1997 Budget Justification.

Answer.

Audit Results (Dollars in Millions)	FY 94	FY 95	FY 96 (as of 3/31/96)
Number of Reports Issued	1,334	968	262
Costs Questioned	$111	$110	$21.8
Costs Unsupported	$78	$71	$6.9
Funds To Be Put To Better Use	$506	$1,531	$395.5
Number of Reports Resolved	693	368	128
Costs Questioned Resolved	$341	$85	$86
Costs Questioned Sustained	$62	$18	$11.9
Funds To Be Put To Better Use Resolved	$879	$1,018	$272
Funds To Be Put To Better Use Sustained	$286	$892	$96.5

Inspection and Evaluation Results	FY 94	FY 95	FY 96 (as of 3/31/96)
Number of Reports Issued	16	13	8
Number of Projects Completed	45	32	15
Congressional Requests Processed	16	5	1

Investigative Results (Dollars in Millions)	FY 94	FY 95	FY 96 (as of 3/31/96)
Indictments	136	158	71
Convictions	125	105	64
Fines	$3.5	$5.8	$2.9
Court Ordered Restitution/Civil Judgments	$2.2	$0.8	$1.1
Federal Recoveries	$10.5	$43.0	$6.5
State Recoveries	$.4	$2.6	$1.6
Years Sentenced	85	66	49
Years Probation	224	249	129
Debarments and Other Administrative Actions	119	102	36
Cases Closed [1]	182	164	68
Hotline Complaints Received	441	424	261
Hotline Complaints No Action Required	85	53	30
Hotline Complaints Actions Taken	356	371	231

[1] Figures represent reactive investigations where all investigative and administrative efforts have been completed and the investigations were closed with no action.

Question. The Inspector General recently audited FAA's compliance and enforcement of employees who took voluntary separation incentive payments (buyouts). That audit work discovered that FAA had allowed as many as 17 of 20 former FAA employees to return under contract to do the exact same work which they had formerly performed for FAA, or which another employee had performed for FAA. Please update the Committee on the results of that investigation: have the early buyout payments for the 17 employees been recouped, and what steps has FAA taken to prevent such occurrences in the future?

Answer. Based on OIG audit findings, in March 1996, we initiated a national investigative project concerning the Federal Aviation Administration's (FAA) buyout recipients who have rendered post-separation services to FAA or DOT in possible violation of criminal and/or civil statutes. Of the approximately

3,100 FAA employees who took the buyout, to date FAA and OIG have identified over 320 buyout recipients who have returned to work under contract for FAA. Recoupment actions are pending the completion of investigations on a case-by-case basis. OIG is unaware of any policy or procedures FAA has instituted to date to preclude future occurrences. Our audit report dated February 9, 1996, recommended that FAA "[E]stablish policy that employees who take buyouts are prohibited from working on FAA contracts for 5 years." By memorandum to the Inspector General dated April 15, 1996, the FAA Administrator did not concur with this recommendation, stating:

> "This recommendation exceeds the limitation that was contained in the Federal Workforce Restructuring Act of 1994, and FAA has no authority to impose additional restrictions retroactively. The limitations on future buyouts will have to be determined in accordance with the language of the authorizing statute."

MOTOR FUEL TAX EVASION

Question. The ISTEA authorized the Federal Highway Administration $5 million a year from the trust fund to fight motor fuel tax evasion, and authorized an additional $2.5 million a year from general funds. Has the Inspector General audited FHWA's use of the $5 million a year in contract authority from the trust fund? If so, what are the results of that audit?

Answer. The OIG has not audited the Federal Highway Administration's (FHWA) use of the $5 million in contract authority from the trust fund.

Question. Does the IG have any recommendations to make based on its own investigations as to how these funds might be put to better use? Does the IG have a position on whether the additional $2.5 million in general funds could cost effectively augment the money from the trust fund? If so, where best would these funds be directed?

Answer. The OIG's investigative activity in the area of motor fuel tax evasion occurs as part of multi-agency regional task forces or joint investigations. FHWA and the Joint Federal/State Motor Fuel Tax Compliance Project (Joint Project) promotes such joint efforts. The OIG's experience confirms that this team approach is required due to a number of legal and logistical factors, including the extensive staff and other resource demands inherent in such investigations, the necessity of the Internal Revenue Service (IRS) participation in Federal tax prosecutions, the frequent involvement of organized crime elements, and the concurrent violations of state and Federal laws.

From the results seen by OIG in particular cases and the data reported by IRS and FHWA, OIG believes the annual $5 million Trust Fund allocation has been spent in cost-effective ways. Tax assessments and revenues have increased dramatically; the Joint Project, legislative changes, and related initiatives have yielded revenue enhancements of hundreds of millions of dollars. OIG has no recommendation at this time as to better use of the $5 million allocation.

Although motor fuel tax revenues have increased and evasion has lessened, the financial incentive for evasion remains; and new schemes will continue to emerge. One such emerging type of scheme is "blending." Blending schemes involve mixing substances, such as waste fuel or kerosene, with taxable motor fuel. The seller will collect tax on the increased volume of product, but not remit the tax for those gallons. A comprehensive enforcement program will be continuously required to prevent significant erosion of the revenue gains realized.

The additional $2.5 million in general funds could cost-effectively augment the trust fund money. These additional funds could be deployed in any or all of the prongs of the enforcement program--civil cases (tax audits and examinations), criminal investigations, or Dyed Fuel Compliance Inspections--either to expand or maintain present activities. (The present $5 million allocation represents only a portion of the actual expenditures of agencies involved in the joint project.) It will continue to be necessary to have a strong capability to monitor compliance, rapidly detect violators, and gather intelligence on emergent schemes.

To this end, a prime allocation of additional funds at this time could be to assist IRS in funding state contracts and/or in-house programs for field sampling and testing of diesel fuel. It is our understanding that IRS intends to discontinue funding its state contracts for roadside inspections in FY 1998, due to lack of resources. Additionally, the IRS's 150 Diesel Compliance Officers, who inspect bulk storage and distribution facilities, are significantly less than the 400 originally suggested by FHWA. Although some of the FY 1998 roadside inspection losses may be ameliorated by state funding, it is important to maintain as vigorous and high-profile a field inspection program as possible, to ensure fuel dyeing remains a meaningful compliance tool.

Question. The Inspector General's latest estimate of "recoveries" -- that is, the dollars recovered for each dollar spent in the area of motor fuel tax evasion.

Answer. OIG does not maintain a separate estimate of dollars recovered per dollars spent in the area of motor fuel tax evasion, but rather refers to the figures compiled by FHWA and IRS. As noted in the above answer, OIG participates in motor fuel tax evasion investigations only as a member of multi-agency task force teams. Given the typically large dollar impacts of the prosecutions, a separate OIG cost/recovery ratio would present an extremely skewed picture.

The IRS's Examination Division recently reported a FY 1995 $24:1 benefit/cost ratio for the 16 key districts in the 9 task force regions, with $36.9 million in tax and penalties assessed. The FY 1995 ratio, higher than the prior year's $13:1 ratio, is due to the outgrowth of a major criminal investigation. For the first 3 months of 1996, the return was $1,000 per hour and the benefit/cost ratio was $13:1. IRS expects these figures to increase somewhat by the end of the year. FHWA reports that for the first half of FY 1995 (the latest period available), the aggregate ratio for 49 reporting states was $12.2:1 ($13.4:1 including penalties and interest). During the second half of FY 1994, the figures were $9.9:1 and $11:1, respectively.

The benefit/cost ratio is but one measure of effectiveness. Evasion deterrence is difficult to fully quantify, but a good indication, via increased compliance, can be discerned from the increase of net revenues in recent years. A prime example is the adjusted increase in diesel receipts in excess of $600 million from 1993 to 1994. Additionally, while harder to measure, the deterrent value of a program can also be considered from the perspective of its ability to prevent erosion of existing revenues; i.e., the losses that would result in the absence of the program. Further, successful criminal prosecutions, even those which do not result in monetary recoveries, have an important deterrent effect and stop large-scale, ongoing losses.

Question. What has the OIG spent on motor fuel tax evasion the past three fiscal years? What is budgeted for FY 1997?

Answer.

Motor Fuels Excise Tax Evasion
Total Investigative Hours by Fiscal Year

Fiscal Year	Total Investigative Hours	Percentage of Total Investigative Resources
1993	7,933	7.6%
1994	8,111	9.2%
1995	7,197	8.4%
1996 (October 1, 1995 to June 5, 1996)	3,345	5.8%

OIG is unable to forecast future investigative hours for FY 1997 motor fuel tax evasion investigations because the identity of such investigations are unknown at this time.

In the past 3 fiscal years (FY 1993-95) OIG has expended 23,241 staff hours, or roughly 11 staff years, in the investigation of motor fuel tax evasion. During FY 1996, OIG has expended 3,345 staff hours, which equates to $130,720 in personnel compensation and benefits. OIG has no appropriation earmarked for motor fuel tax evasion and does not have a fixed amount budgeted for such work in FY 1997. However, OIG presently projects expending approximately 3 staff years in FY 1997 for conducting criminal investigations of motor fuel tax evasion and the related trial support work, as well as participating in the Joint Project's Steering Committee. It should be noted that this projection is heavily contingent upon developments outside the control of OIG, such as the extent of investigative activity undertaken by the IRS's Criminal Investigations Division and whether indicted defendants enter guilty pleas or elect to go to trial.

SIGNIFICANT PROBLEM AREAS

Question. In the budget justification, the IG stated that it will continue to focus on the eight most significant problem areas within DOT. For each of the eight areas listed on page XX of the FY 1997 Budget Justification, please briefly describe why you label them "most significant problem areas". What do you mean by "continue to focus"?

Answer. OIG has identified eight significant issues within DOT which OIG considers critical to the present and future operations of DOT. All of these were not viewed as problem areas but areas which warranted our oversight attention. The eight issues were identified and discussed extensively in OIG's Semiannual Report to the Congress for the period April 1, 1995 through September 30, 1995. Many of these issues received substantial OIG attention in FY 1995, and OIG planned to continue our focus on these areas. Below, each of the eight areas is identified and accompanied by a brief explanation of why OIG feels the area is significant. Some specific issues affect more than one of the eight problem areas.

1. DOT's restructuring and funding. Federal transportation spending is expected to decrease significantly over the next few years. In addition, a number of significant proposals for restructuring the Department are currently under consideration. Departmental restructuring in conjunction with spending reductions will impact DOT's mission, programs, and organizational structure. Our concern is to ensure that these

changes are implemented effectively and efficiently with minimal impact on critical DOT operations.

2. Safety oversight. DOT has a responsibility for assuring safety in all modes of transportation. Recent OIG audits identified significant weaknesses in safety oversight in (a) several FAA programs, such as identifying suspected unapproved parts (SUPs) in aircraft; (b) motor carrier safety assistance program safety inspections; and (c) rail transport of hazardous materials (HAZMAT). In addition, recent events have focused public attention on flight safety in the airline industry, on the safe transportation of HAZMAT by commercial air carriers, and on various railway and pipeline safety issues.

3. Operation and maintenance of FAA's air traffic control (ATC) systems. FAA is experiencing reduced budgetary authority in several areas including operations, facilities, and equipment. These reductions are occurring as new equipment is being added to the ATC systems and as existing, aging equipment requires increased maintenance. In addition, staffing levels are decreasing as a result of restructuring and attrition, forcing FAA to increasingly rely on system maintenance by contractors.

4. Financial management system controls in DOT. OIG's FY 1994 financial statement audits of DOT identified two material internal control weaknesses in the Departmental Accounting and Financial Information System. Three other weaknesses in internal controls could result in OIG being unable to render opinions on the financial statements. Correcting these control weaknesses will not guarantee the issuance of audit opinions. However, failure to correct these weaknesses will result in either qualified opinions or disclaimers of opinion. Still another problem is that labor-intensive, year-end manual adjustments impact the Department's ability to meet deadlines for audited financial statements. As a result of OIG audits and management actions, significant improvements were noted in the FY 1995 financial statements.

5. Major acquisitions in FAA and U.S. Coast Guard (USCG). FAA and USCG plan to make major acquisitions in the areas of facilities, equipment, construction, and improvements. FAA and USCG have a history of inadequate mission analysis, frequent changing of requirements, insufficient operational testing, inadequate contractor oversight, and poor contractor performance. Additional problems include inadequate equipment specification and testing, which has led to poor functioning of the acquired equipment. Both modes have a poor record of controlling program cost growth coupled with significant delays in

deliveries. Both have made improvements in their acquisition process; however, continued oversight is needed to prevent further abuses. Additional attention is needed to oversee the effectiveness of the FAA's newly adopted acquisition methods.

6. Personnel management in FAA. In the recent past, OIG audits of FAA programs have revealed an alarming number of problems and issues related to personnel. Abuses identified include improper and excessive payments for permanent change-of-station moves, unnecessary pay and benefits costs, ineffective contract administration, violations of ethical standards of conduct, violations of buyout authority, and ineffective oversight of the Workers' Compensation Program. In addition, the prevalence of support services contracts in FAA has shifted the role of a typical FAA employee from providing a service towards managing contracts.

7. Contract administration. The effectiveness of DOT's contract administration activities has been a continuing concern to OIG. Our audit reports have identified the need for improvements in: (a) monitoring contractor performance, (b) monitoring contract cost, (c) deobligating excess funds on completed contracts, (e) closing completed contracts in a timely manner, (f) documenting contract modification actions, and (g) training procurement officials. Through our investigations, OIG found ineffective contract administration created an environment which allowed contractors to submit inflated claims, false claims, and mischarges. In addition, increasing weaknesses in administering support service contracts is a growing concern.

8. Transportation of HAZMAT. Recent polls indicate Americans are deeply concerned with environmental issues. DOT plays a central role in protecting the environment by regulating the transportation of HAZMAT. Because of DOT's central role in regulating HAZMAT, U.S. Attorneys' Offices frequently solicit OIG to participate on environmental task forces and to serve as the criminal law enforcement agency for DOT. Because of heightened public concern regarding environmental matters and because of an increase in requests to participate in the investigation of environmental crimes, OIG expects to play a larger role in this area and will apportion its investigative resources accordingly.

Question. On what particular FAA programs under item #2, safety oversight, will the IG be focusing, and why?

Answer. In FYs 1996 and 1997, the Office of Assistant Inspector for Auditing will focus on the following safety oversight issues/areas:

Fiscal Year 1996

- Airport Certification Program
- Air Taxi and Commuter Operation of Aircraft with Recurring Airworthiness Maintenance Problems
- Transportation of HAZMAT in the Nation's Airways
- Wildlife Management on Airport Property
- Exemption from Rulemaking
- Utilization and Monitoring of Designated Manufacturing Inspection Representatives

Fiscal Year 1997

- Suspension and Revocation of Pilot Certificates Due to Alcohol and/or Drugs
- Oversight of New Entrant Air Carriers
- Certification of Transport Aircraft
- Aircrew Designated Examiner Program

The Office of Assistant Inspector General for Inspections and Evaluations currently is reviewing several FAA programs involving safety oversight:

- Deicing Program Follow-up. As a follow-up to our earlier inspection concerning FAA's Deicing Program, this review was initiated to physically observe deicing operations at selected airports. This review will determine if FAA's deicing regulation improved air safety by ensuring aircraft are free of snow and ice at takeoff.

- Extended Range Operations with Two-Engine Airplanes. This inspection was initiated to determine the effectiveness of FAA's process for assessing the suitability of the Boeing's Model 777-200 for early extended range operations with two-engine airplanes (ETOPS). Under ETOPS, applicants (manufacturers and operators) seek FAA's approval to fly twin-engine aircraft long distances, often over water and away from any suitable airports, for periods greater than 1 hour.

- Dual Role of Safety and Promotion. The purpose of this inspection is to determine if aviation safety is at risk due to FAA's dual role--as established in the Federal Aviation Act of 1958--of promoting civil aviation and regulating safety.

The Office of Assistant Inspector General for Investigations will continue to focus on the following safety oversight area in the aviation industry:

- SUPs. From its inception in 1988, our investigation of SUPs has resulted in 173 indictments, 133 convictions, $48.8 million in fines, restitution and recoveries, 90 years incarceration, and 322 years probation. The problem of SUPs was the subject of a Senate investigation in 1995 and a hearing in May 1995, by Senator William S. Cohen, Chairman, Senate Committee on Governmental Affairs, Subcommittee on Oversight of Government Management. As a result of OIG efforts, the Senate investigation and Senator Cohen's hearing, FAA established a SUPs Task Force during the summer of 1995. OIG participated in that Task Force effort. In October 1995, the Task Force issued its report resulting in FAA establishing a new program office for SUPs. The OIG's focus on SUPs will include, in addition to continued criminal investigations, working with the FAA's new program office on issues of inspector training and improved coordination between FAA and law enforcement agencies.

The above programs are all directly related to aviation safety. OIG is focusing on safety oversight responsibilities to determine if they are performed effectively to help ensure the Department is accomplishing its mission of assuring a safe transportation network for the traveling public.

Questions. In item #5, on which major acquisitions of the FAA and of the U.S. Coast Guard (USCG) will the IG be focusing, and why?

Answer. In FYs 1996 and 1997, OIG will focus on the following major acquisition program issues/areas:

Fiscal Year 1996

FAA

- Effectiveness and Reliability of National Airspace System and Equipment Airport Certification Program
- Acquisitions to Prevent Runway Incursions
- Advanced Automation System Program Oversight

USCG

- Surface Search Radar Replacement Program
- Patrol Boat Acquisition
- Monitoring Buoy Tender Construction by Marinette Marine Corporation
- Polar Class Icebreaker Reliability Improvement Project

Fiscal Year 1997

FAA ·
- Advanced Automation System Oversight
- Acquisitions of Telecommunications Services
- Acquisition of Aeronautical Data Link Systems
- Acquisition of Oceanic and Offshore Air Traffic Control Equipment

USCG
- Patrol Boat Acquisition

The above acquisition programs were selected for OIG coverage either because of the criticality of the equipment to the FAA's or USCG's mission, the sizable expenditure planned for these systems, or to ensure that significant problems that have occurred on similar acquisitions are not repeated. Some of the major acquisition programs planned for OIG coverage meet more than one of the above reasons for coverage.

BUDGET REQUEST

Question. Why has the workers' compensation estimate increased from $38,000 in 1996 to $175,000 in 1997? Please detail the number of persons covered, and explain why the sudden increase is anticipated.

Answer. Federal agencies reimburse the Department of Labor for workers' compensation claims in the second fiscal year after the costs are actually incurred. Therefore, the $175,000 for OIG's FY 1997 workers' compensation represents the actual costs of workers' compensation incurred in FY 1995. Over $150,000 of the $175,000 represent payments to two individuals (both are special agents); one retired under workers' compensation, and the other is paid for an injury suffered while on the job. The retiree received $82,000 in FY 1995; the other special agent received $69,000 in FY 1995. These first-time costs (of $151,00) are the reasons for the sudden increase in the OIG's workers' compensation from FYs 1996 to 1997. In addition, in FY 1997 OIG was charged $13,000 in payments made (in FY 1995) to the spouse of an OIG employee who died while on travel for the agency. The remainder of the payments ($11,000) were one-time, small payments for minor on-the-job injuries incurred by nine OIG employees.

Question. Please explain why the integrated payroll/personnel system costs are estimated to increase over 33 percent from the fiscal year 1996 level. Why is the Inspector General being charged this working capital fund increase? Is this consistent with the percentage increase of other DOT agencies for payroll/personnel system working capital fund support?

Answer. The Integrated Payroll/Personnel System (IPPS) is a new departmental system that began in FY 1996. The FY 1996 level only covered 9 months of operational costs while the FY 1997 estimate includes a full year of operational costs plus the costs of performing IPPS enhancements. In addition, FAA will be billing users for the first time for the telecommunications costs and for increased information processing costs--related to the Computer Resources Nucleus (CORN) project. The overall departmental increase in this category was $2,646,000 which represented a 31 percent increase over FY 1996. OIG's increase is consistent with the increases to other DOT agencies.

BONUSES AND AWARDS

Question. Please provide a comparison of the total amount expended for bonus payments in fiscal years 1994, 1995, and 1996. List those persons with the amounts received for each year, similar to the charts on pages 249 and 254 of Senate Hearing record 104-76, part 3.

Answer.

FY/Item	Number Given	Dollar Amount
FY 1994		
SES bonuses	2	$15,224
Performance Awards		
PMS	176	$141,190
PMRS	89	$165,076
Other Awards	103	$37,044
	-----	----------
Total FY 1994	370	$358,534
FY 1995		
SES Bonuses	2	$16,000
Performance Awards		
PMS	93	$23,391
PMRS	94	$98,319
Other Awards	58	$16,465
	-----	----------
Total FY 1995	247	$154,175
FY 1996 /1		
SES Bonuses	2	$12,000
Performance Awards		
PMS	0	0
PMRS	101	$73,100
Other Awards	31	$16,575
	-----	----------
Total FY 1996	134	$101,675

/1 FY 1996 awards through May 1996 ($105,321 is undisbursed).

FY 1994 BONUSES AND AWARDS

OFFICE/NAME	AWARD
OFFICE OF INSPECTOR GENERAL - IMMEDIATE OFFICE	
MCFADDEN, CASANDRA P	$1,258
POE, MARLENE A	$1,650
POE, MARLENE A	$1,250
POE, MARLENE A	$610
POE, MARLENE A	$250
TOTAL	**$5,018**
OFFICE OF DEPUTY INSPECTOR GENERAL - IMMEDIATE OFFICE	
LAURO, MARIO A JR	$7,612
MURPHY, DARREN L	$3,463
MURPHY, DARREN L	$1,500
TOTAL	**$12,575**
OFFICE OF ASSISTANT INSPECTOR GENERAL FOR AUDITING - IMMEDIATE OFFICE	
BREWINGTON, LACHELE S	$409
DECARLI, RAYMOND J	$7,612
KITCHEN, JO ANN	$1,040
KITCHEN, JO ANN	$560
MICHAELANGELO, ALFRED O	$2,037
MICHAELANGELO, ALFRED O	$1,500
PEREZ, RODOLFO E	$1,731
RICE, MARY H	$1,258
SIMPSON, CLEO D	$3,463
STULGINSKY, EDWARD M	$1,731
STULGINSKY, EDWARD M	$250
STULGINSKY, EDWARD M	$250
TOTAL	**$21,841**
OFFICE OF ASSISTANT INSPECTOR GENERAL FOR AUDITING - HEADQUARTERS OFFICES	
OFFICE OF AVIATION AND SURFACE TRANSPORTATION AUDITS	
BECTON, STANWYN A	$250
BEITEL, KARI E	$200
BESS, JAMES W	$825
CONNARD, STEPHEN M	$570
CONNARD, STEPHEN M	$459
DOBBS, DAVID A	$4,074
DOBBS, DAVID A	$1,500

DORSEY, KEVIN	$484
FRANCIS, JOHN G	$250
HILL, MICHELLE C	$1,467
HILL, MICHELLE C	$250
HOLSCHER, ARNOLD R	$2,933
HYLAND, LAURINE R	$1,467
KAPLAN, RICHARD A	$1,731
KAPLAN, RICHARD A	$250
LAW, JEAN R	$422
LOUALLEN, ELOISE G	$1,040
LOUALLEN, ELOISE G	$1,000
LOUALLEN, ELOISE G	$560
MCMAHAN, BILLY J	$1,500
METZGER, STUART A	$2,037
METZGER, STUART A	$500
MORRISON, FELICIA L	$200
MROZOWSKI, DAVID J	$250
MROZOWSKI, DAVID J	$250
OBINGER, WILLIAM M	$1,467
OBINGER, WILLIAM M	$250
RAVILLE, DANIEL R	$924
RAVILLE, DANIEL R	$560
RIELLY, MARK F	$825
RIELLY, MARK F	$484
RIFE, MARLIN B	$1,467
ROBINSON, ELIZABETH A	$825
ROBINSON, ELIZABETH A	$484
ROBINSON, ELIZABETH A	$150
SACHS, THOMAS A	$1,467
SCHUTZ, FRANK J	$1,467
SHANKER, MICHAEL H	$3,463
SHANKER, MICHAEL H	$500
SUCHER, RICHARD W	$1,731
SUCHER, RICHARD W	$250
THOMPSON, ROY E	$1,731
TRODDEN, SHARON R	$825
TRODDEN, SHARON R	$484
WOODS, SEAN L	$459
TOTAL	**$44,282**

OFFICE OF MARINE AND DEPARTMENTWIDE AUDITS

AYERS, SHARON J	$484
BOLDING, KIMBERLEY A	$462
BOLDING, KIMBERLEY A	$434
BROWN, PHILIP	$1,467
BROWN, RONALD E	$1,731

BROWN, RONALD E	$500
CORNELL, FIDEL JR	$1,467
CRAWFORD, ORA L	$1,467
DEGONZAGUE, PHILIP J	$1,731
DORSEY, KEVIN	$825
GIELNER, JAMES A JR	$400
LEWIS, PAUL B	$1,467
LEWIS, PAUL B	$400
LONG, JANET W	$484
LYONS, BEVERLY M	$560
MEADE, LEONARD F	$434
MEADOWS, CAROLYN D	$484
MROZOWSKI, DAVID J	$1,731
PERSH, JEROME S	$2,037
PYRON-SATCHELL, MELISSA	$484
SALLERSON, KEITH R	$484
SANDLER, JACK L	$1,467
SIMMS, QUEEN E	$462
TURNER, HILBERT H	$1,731
UHL, DAVID R	$688
VAN DYCK, JOHN K	$1,467
VETTER, VICTORIA L	$459
YEARWOOD, LISA J	$422
YEARWOOD, LISA J	$409
TOTAL	**$26,638**

OFFICE OF INFORMATION TECHNOLOGY AND FINANCIAL AUDITS

ALBRIGHT, KRISTIE A	$373
ANTIPOROWICH, BRUCE	$1,731
BERRAN, DAVID I	$2,037
BEZILA, LAURA	$825
BEZILA, LAURA	$484
BEZILA, LAURA	$200
CHILDERS, JAMES A JR	$2,037
CLOSE, RONALD G	$1,731
CLOSE, RONALD G	$250
CRANE, BRYAN O	$1,467
DAVIS, MARTIN E	$570
DENSMORE, EDWARD A III	$1,467
DUNSCOMB, STEPHANIE A	$570
EVANS, ANITA J	$825
EVANS, ANITA J	$484
EVANS, ANITA J	$200
GILBERT, JACK A	$1,467
GLAGOLA, EDWARD M JR	$2,037

HANSON, MARY E	$1,467
HEDGES, EARL C	$1,731
LENG, REBECCA C	$1,731
LEW, ZENA L	$484
LYONS, BEVERLY M	$462
MARTINEZ, GLORIA R	$688
MCLEAN, ROSETTA W	$1,467
MCMILLAN, ANITA M	$688
MEADE, LEONARD F	$462
NORDHOFF, FREDERICK C	$1,467
SAHIN, SEKIP	$484
SHARP, SUSANA L	$1,731
STEVENS, PATRICIA K	$924
STEVENS, PATRICIA K	$535
TOLSON, FRANCES L	$250
TOWNLEY, JAMES H	$825
TOWNLEY, JAMES H	$610
TOTAL	**$34,761**

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR AUDITING - REGIONS

NEW YORK REGIONAL AUDIT OFFICE

DOMBISH, DAVID J	$825
DOMBISH, DAVID J	$484
DONNA, KIMBERLY E	$825
DONNA, KIMBERLY E	$484
GOLDSTEIN, MICHAEL E	$2,037
GRUNER, STEPHEN	$1,376
HOLMES, CATHERINE	$462
HOLMES, CATHERINE	$434
KEANE, TIMOTHY G	$825
KEANE, TIMOTHY G	$484
LOWE, KAREN L	$825
LOWE, KAREN L	$610
MCKIERNAN, MICHAEL T	$1,731
MERRIMAN, CHERYL L	$484
ONG, JEFFREY	$1,500
ONG, JEFFREY	$1,467
PRICE, VIRGINIA M	$422
ROSARIO, CARMEN E	$409
SNYDER, THOMAS H	$1,650
SNYDER, THOMAS H	$1,650
STANLEY, SHAUN E	$1,467
WILLIAMS, ROY F	$825
WILLIAMS, ROY F	$610
TOTAL	**$21,886**

BALTIMORE REGIONAL AUDIT OFFICE

BAXTER, KATHERINE L	$688
BAXTER, KATHERINE L	$484
BAXTER, KATHERINE L	$100
CISCO, WILLIAM P II	$570
CISCO, WILLIAM P II	$100
GERMANN, JEFFREY W	$688
GERMANN, JEFFREY W	$200
HEIBECK, WAYNE T	$825
HEIBECK, WAYNE T	$484
HEIBECK, WAYNE T	$100
MEISENHELDER, ROBERT F	$688
MEISENHELDER, ROBERT F	$459
SATTERFIELD, CHISATO	$746
SATTERFIELD, CHISATO	$409
SCHEINER, FLORENCE H	$462
SCHEINER, FLORENCE H	$409
SMOTHERS, MARY E	$1,467
SMOTHERS, MARY E	$1,000
WIMSATT, KAREN L	$100
TOTAL	**$9,979**

ATLANTA REGIONAL AUDIT OFFICE

ANDERSON, JOYCE E	$462
ANDERSON, JOYCE E	$409
BLACKMON, LARRETHA A	$373
HARRISON, LEE A	$825
INGLE, SONIA S	$434
KILGORE, MARY A	$825
LANEY, GINA P	$610
LANEY, GINA P	$500
LONGTIN, ANNE V	$1,467
LUND, ALF R	$560
LUND, ALF R	$462
NYSTED, TINA B	$500
NYSTED, TINA B	$484
PATTERSON, SHARON S	$585
PATTERSON, SHARON S	$500
PURCELL, ROBIN L	$1,467
ROBSON, ALAN D	$3,463
STONE, DUANE E	$825
TAYLOR, JAMES B	$825
TAYLOR, JAMES B	$484
WARD, PARD R	$1,731
WEEKLY, DONALD P	$1,467

WILDER, MALINDA R	$275.
WILKERSON, EDWARD H	$825
WILSON, TWAN L	$560
WITUCKI, ROY R	$1,731
TOTAL	**$22,649**

CHICAGO REGIONAL AUDIT OFFICE

BAINES, CHERYL	$1,467
BELLINO, SAM N	$1,467
BOSSOM, WILLIAM F	$825
CONFILIANO, AMY L	$462
CRIPE, DEBRA A	$688
GASTROW, RAYMOND P	$570
GASTROW, RAYMOND P	$459
HAYES, JUANITA M	$373
HOOGENBOOM, RONALD H	$2,037
KARAS, LORRAYNE B	$462
NOLL, RICHARD N	$1,731
ROBERTS, JENNIFER M	$462
ROBERTS, JENNIFER M	$434
ROGERS, JOLENE M	$484
STREIT, PAUL M	$825
STREIT, PAUL M	$484
TOTAL	**$13,230**

FORT WORTH REGIONAL AUDIT OFFICE

BARRAS, KERRY R	$459
CRUZ, BENNIE M	$1,731
KRAM, JAMES J	$1,731
LOWES, THOMAS F	$825
MCLAUGHLIN, GREGORY E	$484
MECHE, JOHN L	$2,037
MEEKS, A FAYE	$1,467
NESBITT, SUSAN N	$484
NORRIS, EVELYN H	$535
NORRIS, EVELYN H	$462
TOMLINSON, ROSS E JR	$484
WEIMER, VALERIE E	$825
WEIMER, VALERIE E	$610
WILLIAMS, ESSIE V	$825
WILLIAMS, ESSIE V	$610
WILSON, DOUGLAS S	$1,467
TOTAL	**$15,036**

KANSAS CITY REGIONAL AUDIT OFFICE

IRONS, LINDA S	$434

REICHERT, SHEILA D	$825
SPALDING, AMY L	$462
STIVERS, GARY D	$484
STIVERS, GARY D	$250
WOOD, BARBARA K	$422
WOOD, BARBARA K	$409
TOTAL	**$3,286**

SAN FRANCISCO REGIONAL AUDIT OFFICE

BLAKE, PAUL L	$610
BRUCIA, JAMES A	$2,037
DORN, ROBIN K	$1,731
DORN, ROBIN K	$1,500
LIER, SUSAN M	$688
MAYEDA, JOYCE K	$570
MAYEDA, JOYCE K	$560
MELARA, HUMBERTO U	$200
NADEL, JUDY W	$825
NADEL, JUDY W	$484
NADEL, JUDY W	$250
NELLIS, DONALD L	$1,467
OSBORN, JOHN E	$1,467
VELASCO, CARLOS J	$1,731
TOTAL	**$14,120**

SEATTLE REGIONAL AUDIT OFFICE

BITZER, RICHARD L	$1,467
BRATTAIN, DIANA R	$825
BRATTAIN, DIANA R	$484
DICKSON, DAVID M	$825
DICKSON, DAVID M	$484
DIECKER, JAMES H	$1,731
FJERMEDAL, LYLE B	$825
FJERMEDAL, LYLE B	$610
GILLETT, KIRK A	$484
KENT-NISTAS, VICTORIA J	$462
KINDLEY, EARL G	$825
KINDLEY, EARL G	$484
TOTAL	**$9,506**

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR INSPECTIONS AND EVALUATIONS - IMMEDIATE OFFICE

TRISKA, MARY C	$520
TOTAL	**$520**

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR INSPECTIONS AND EVALUATIONS - REGIONS

WASHINGTON REGIONAL INSPECTIONS OFFICE

BUZZELLA, LISA A	$825
BUZZELLA, LISA A	$200
GARVIN, ANGELA E	$200
GULLEDGE, MICHAEL D	$1,467
MONTAGUE, SHEILA	$560
SIVIY, MICHAEL M	$200
TOTAL	**$3,452**

CHICAGO REGIONAL INSPECTIONS OFFICE

HERDZINA, LARRY K	$825
TOTAL	**$825**

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR INVESTIGATIONS - IMMEDIATE OFFICE

GIULIANO, MARLA K	$825
MILLER, SUSAN S	$200
ROBINSON, CARLA	$924
SHARP, BRIAN E	$1,731
TOTAL	**$3,680**

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR INVESTIGATIONS - REGIONS

NEW YORK REGIONAL INVESTIGATIONS OFFICE

DOHERTY, THEODORE L III	$3,463
DOHERTY, THEODORE L III	$1,500
GUGGINO, NICHOLAS J JR	$688
GUGGINO, NICHOLAS J JR	$484
MCGOVERN, JOSEPH B	$983
MCGOVERN, JOSEPH B	$250
SHIRING, DOUGLAS J	$688
TUCK, CHRISTOPHER C	$373
WHICHARD, DEMETRIUS L	$422
ZINSER, TODD J	$4,074
TOTAL	**$12,925**

BALTIMORE REGIONAL INVESTIGATIONS OFFICE

BEITEL, RICHARD C JR	$688
BEITEL, RICHARD C JR	$610
JACKSON, SHAUN M	$825
MACKALL, LISA T	$844
MACKALL, LISA T	$100
TUCKER, GERARD H JR	$1,650

WATERS, MICHAEL J	$1,650
WATERS, MICHAEL J	$1,343
WATERS, MICHAEL J	$610
WISEMAN, EARLINE	$462
WISEMAN, EARLINE	$409
WISEMAN, EARLINE	$150
TOTAL	**$9,341**

ATLANTA REGIONAL INVESTIGATIONS OFFICE

BEZANSON, THOMAS W	$825
GRIFFITH, LAVAN	$825
GRIFFITH, LAVAN	$610
LONG, JOHN W	$1,966
MALLORY, JOHN R	$983
PORRASPITA, BARBARA L	$459
ROPER, SANDRA M	$924
ROPER, SANDRA M	$535
SCHAEFER, HARRY	$1,731
SINGLETON, CRAIG S	$983
TOTAL	**$9,841**

CHICAGO REGIONAL INVESTIGATIONS OFFICE

BALDWIN, JAMES H JR	$1,731
HAMILTON, MICHAEL D	$825
KELLEHER, JAMES G	$1,467
KINSELLA, MICHELLE T	$825
KINSELLA, MICHELLE T	$610
TOTAL	**$5,458**

FORT WORTH REGIONAL INVESTIGATIONS OFFICE

CASTILLO, CARLOS L	$825
CASTILLO, CARLOS L	$484
CASTILLO, GEORGE L	$1,650
LIBOWSKY, JOSEPH H	$1,650
LIBOWSKY, JOSEPH H	$1,000
LIBOWSKY, JOSEPH H	$610
MAHON, JAMES H	$825
MAHON, JAMES H	$610
MCGRUDER, LISA G	$462
OWENS, WILLIAM L	$610
SNEE, GLYNN D	$2,037
SNEE, GLYNN D	$2,037
TRUXAL, DANIEL J	$1,731
TOTAL	**$14,531**

SAN FRANCISCO REGIONAL INVESTIGATIONS OFFICE

LINKERT, TRISTAN	$825
LINKERT, TRISTAN	$610
LINKERT, TRISTAN	$250
MURRAY, ROBERT A	$825
MURRAY, ROBERT A	$150
SAWADA, SYLVIA E	$462
SMEDLEY, HANK W	$1,966
TOTAL	**$5,088**

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR POLICY, PLANNING AND RESOURCES - IMMEDIATE OFFICE

CHANEY, MARY M	$1,258
CHANEY, MARY M	$1,020
TOTAL	**$2,278**

OFFICE OF POLICY AND PROCEDURES

FALTER, ROBERT D	$1,467
OCHS, FRANCIS H	$250
RIDLEHOOVER, THOMAS A	$1,731
VASS, SAMUEL S JR	$1,467
TOTAL	**$4,915**

OFFICE OF PLANNING AND RESOURCES

BOWIE, DOROTHY B	$1,650
BOWIE, DOROTHY B	$1,250
BOWIE, DOROTHY B	$250
CARTWRIGHT, CLAYTON E	$1,650
CHRISTENSEN, MARGUERITE	$1,731
EICHELMAN, GEORGE K	$1,731
FREY, ROBERT B III	$4,074
GIBBS, BARBARA E	$560
GIBBS, BARBARA E	$520
MURPHY, SHARON M	$422
PYLES, ODESSA M	$570
PYLES, ODESSA M	$459
SIMPSON, LORENA M	$422
SOMERVILLE, GLENDA P	$1,731
TOTAL	**$17,020**

OFFICE OF HUMAN RESOURCES

BANAGAN, DEBORA L	$250
BANAGAN, DEBORA L	$250
DAVIS, SAMUEL JR	$1,731
DEXTER, LESLIE A.	$570

GRAY, STACIE A	$535
GRAY, STACIE A	$462
MULLER, KAREN A	$422
MULLER, KAREN A	$250
REAL, THERESA M	$535
REAL, THERESA M	$462
WATERS, MARY E	$373
WATERS, MARY E	$250
TOTAL	**$6,090**

OFFICE OF TECHNICAL SUPPORT	
HEMINGER, JAMES F	$1,731
MONTAGUE, SHEILA	$1,140
MONTAGUE, SHEILA	$926
MOSBY, TERESA J	$1,731
REVETTA, JACQUELYN W	$800
TREBEL, KEVIN P	$825
TREBEL, KEVIN P	$610
TOTAL	**$7,763**

GRAND TOTAL	**$358,534**

FY 1995 BONUSES AND AWARDS

OFFICE/NAME	AWARD
OFFICE OF DEPUTY INSPECTOR GENERAL - IMMEDIATE OFFICE	
LAURO, MARIO A JR	$10,000
MURPHY, DARREN L	$2,500
REDD-MILLER, ROBIN	$250
SHIRING, DOUGLAS J	$457
TOTAL	**$13,207**
OFFICE OF ASSISTANT INSPECTOR GENERAL FOR AUDITING - IMMEDIATE OFFICE	
KITCHEN, JO ANN	$307
MICHAELANGELO, ALFRED	$1,000
PEREZ, RODOLFO E	$750
RICE, MARY H	$585
RICE, MARY H	$407
SATTERFIELD, CHISATO	$257
SATTERFIELD, CHISATO	$650
SIMPSON, CLEO D	$1,500
TOTAL	**$5,456**

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR AUDITING - HEADQUARTERS OFFICES

OFFICE OF TRANSPORTATION PROGRAM AUDITS

BROWN, CLARENCE L	$150
CONNER, JOYCE V	$150
CORNELL, FIDEL JR	$600
CRAWFORD, ORA L	$600
CUSTER, NATHAN J	$229
FRANCIS, JOHN G	$750
FUJIMOTO, CLARENCE S	$600
HILL, MICHELLE C	$600
HODGES, LINDA L	$600
HOLSCHER, ARNOLD R	$600
KAPLAN, RICHARD A	$750
KERR, ROBERT L	$1,000
KILBY, THEODORE M JR	$750
LOUALLEN, ELOISE G	$307
MEADOWS, CAROLYN D	$457
METZGER, STUART A	$2,500
MITCHELL, ANTHONY W	$229
MROZOWSKI, DAVID J	$1,500
OBINGER, WILLIAM M	$1,300
OBINGER, WILLIAM M	$150
PRINZBACH, ROBERT F II	$750
PYRON-SATCHELL, MELISSA	$229
SANDLER, JACK L	$600
SARRGE, E ANTONIO	$50
SCHUTZ, FRANK J	$250
SCHUTZ, FRANK J	$600
SHANKER, MICHAEL H	$1,500
STEFANI, ALEXIS M	$6,000
SUCHER, RICHARD W	$750
TRODDEN, SHARON R	$229
WOODS, SEAN L	$229
TOTAL	**$25,009**

OFFICE OF INFORMATION TECHNOLOGY, FINANCIAL, AND SECRETARIAL AUDITS

ANTIPOROWICH, BRUCE	$1,500
BENNER, MICHAEL E	$750
BROWN, RONALD E	$1,500
CHILDERS, JAMES A JR	$2,500
CLOSE, RONALD G	$750
CRANE, BRYAN O	$600
DEGONZAGUE, PHILIP J	$750
EVANS, ANITA J	$229

EWAN, JOHN E	$229
HANSON, MARY E	$600
HANSON, MARY E	$250
HEDGES, EARL C	$750
HUEN, ZENA L	$229
JEFFERSON, DOROTHY M	$600
LENG, REBECCA C	$750
MARTINEZ, GLORIA R	$229
MCCALLISTER, ANGELA D	$229
MCLEAN, ROSETTA W	$1,300
MCLEAN, ROSETTA W	$500
MEADE, LEONARD F	$407
MEADOWS, CAROLYN D	$250
NORDHOFF, FREDERICK C	$1,300
RIFE, MARLIN B	$600
SHARP, SUSANA L	$750
STEVENS, PATRICIA K	$257
TOLSON, FRANCIS L	$129
TURNER, HILBERT H	$750
TOTAL	**$18,688**

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR AUDITING - REGIONS
NEW YORK REGIONAL AUDIT OFFICE

ANGELI, EDWARD JR	$600
BLOM, MARGARET	$229
BLOM, MARGARET T	$200
BOUCHER, PETER R	$200
COLE, ELLSWORTH C	$100
CRAWLEY, RICHARD G	$750
CRAWLEY, RICHARD G	$250
DONNA, KIMBERLY E	$229
DONNA, KIMBERLY E	$200
GOLDSTEIN, MICHAEL E	$1,000
HOLMES, CATHERINE	$204
KEANE, TIMOTHY G	$457
KEANE, TIMOTHY G	$200
LOWE, KAREN L	$229
LOWE, KAREN L	$200
MCKIERNAN, MICHAEL T	$750
MCKIERNAN, MICHAEL T	$100
ONG, JEFFREY	$1,300
ONG, JEFFREY	$200
PEER, KATHLEEN A	$229
PEREZ, RAMON	$200
ROSARIO, CARMEN	$129

SHINN, ROBIN R	$600
SHINN, ROBIN R	$250
SNYDER, THOMAS H	$200
TSCHURILOW, JOSEPH	$229
TOTAL	**$9,235**

BALTIMORE REGIONAL AUDIT OFFICE

BANKS, GEORGE E	$200
BAXTER, KATHERINE L	$229
CISCO, WILLIAM P II	$229
ETZE, ANTHONY	$750
ETZE, ANTHONY	$200
GERMANN, JEFFREY W	$229
GERMANN, JEFFREY W	$250
HEIBECK, WAYNE T	$229
MEISENHELDER, ROBERT F	$229
SCHEINER, FLORENCE H	$257
SMOTHERS, MARY E	$600
VETTER, VICTORIA L	$229
VETTER, VICTORIA L	$250
YOUNG, RICHARD M	$200
TOTAL	**$4,081**

ATLANTA REGIONAL AUDIT OFFICE

BULMAN, KIMBERLY M	$229
BULMAN, KIMBERLY M	$100
HOBBS, LISA ANNE	$229
INGLE, SONIA S	$229
KELLEY, JAMES K	$229
LANEY, GINA P	$229
LANEY, GINA P	$250
LEIBRECHT, MIKE J	$100
LONGTIN, ANNE V	$1,300
LUND, ALF R	$204
MARLAR, CHRISTOPHER L	$229
NYSTED, TINA B	$457
PURCELL, ROBIN L	$1,300
ROBSON, ALAN D	$1,500
STONE, DUANE E	$229
WARD, PARD R	$1,500
WILKERSON, EDWARD H	$229
WILSON, TWAN L	$229
WILSON, TWAN L	$250
TOTAL	**$9,022**

CHICAGO REGIONAL AUDIT OFFICE

BAINES, CHERYL	$1,300
BELLINO, SAM N	$600
CRIPE, DEBRA A	$229
GASTROW, RAYMOND P	$229
HAYES, JUANITA M	$129
KARAS, LORRAYNE B	$129
ROBERTS, JENNIFER M	$204
STREIT, PAUL M	$229
TOTAL	**$3,049**

FORT WORTH REGIONAL AUDIT OFFICE

CRUZ, BENNIE M	$750
KRAM, JAMES J	$750
KRAM, JAMES J	$250
MECHE, JOHN L	$2,500
MEEKS, A FAYE	$600
NESBITT, SUSAN N	$229
NORRIS, EVELYN H	$257
PEET, MARK C	$229
SALCEDO, INES M	$229
SCHENKELBERG, ALVIN	$600
TOTAL	**$6,394**

KANSAS CITY REGIONAL AUDIT OFFICE

ALGER, JANICE S	$600
HONZ, ANGELA D	$250
IRONS, LINDA S	$154
PANIJAN, MARY A	$229
WEISS, JOHN H	$600
WOOD, BARBARA K	$129
TOTAL	**$1,962**

SAN FRANCISCO REGIONAL AUDIT OFFICE

ANDERSON, NORMALYN	$229
BLAKE, PAUL L	$229
BRUCIA, JAMES A	$1,000
DORN, ROBIN K	$1,500
LIER, SUSAN M	$229
MAYEDA, JOYCE K	$307
MAYEDA, JOYCE K	$250
NADEL, JUDY W	$229
OSBORN, JOHN E	$600
PIERCE, PECOLIA J	$129
PLATE, LARRY D	$229
TOTAL	**$4,931**

SEATTLE REGIONAL AUDIT OFFICE

BITZER, RICHARD L	$600
BITZER, RICHARD L	$250
BOND, GREGGORY S	$229
BOND, GREGGORY S	$250
BROWN, JEANNETTE M	$250
DICKSON, DAVID M	$125
DICKSON, DAVID M	$229
DIECKER, JAMES H	$750
DUNN, MICHAEL P	$229
FJERMEDAL, LYLE B	$229
KINDLEY, EARL G	$229
LARPENTEUR, RAYMOND A	$600
ZIMMERMAN, SUSAN M	$229
TOTAL	**$4,199**

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR INSPECTIONS AND EVALUATIONS - IMMEDIATE OFFICE

TRISKA, MARY C	$357
TOTAL	**$357**

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR INSPECTIONS AND EVALUATIONS - REGIONS

WASHINGTON REGIONAL INSPECTIONS OFFICE

BEITEL, KARI	$457
BUZZELLA, LISA A	$484
GARVIN, ANGELA E	$1,300
GRISER, GLENN C	$1,000
GULLEDGE, MICHAEL D	$250
SIVIY, MICHAEL M	$750
TOTAL	**$4,241**

CHICAGO REGIONAL INSPECTIONS OFFICE

PETERS, MARK E	$1,000
POWERS, JAMES J	$154
WILSON, SANDRA	$229
TOTAL	**$1,383**

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR INVESTIGATIONS - IMMEDIATE OFFICE

BEITEL, RICHARD C JR	$457
REDMAN, ELIZABETH M	$1,500
ROBINSON, CARLA	$100
YEARWOOD, LISA J	$129
ZINSER, TODD J	$5,000
TOTAL	**$7,186**

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR INVESTIGATIONS - REGIONS

NEW YORK REGIONAL INVESTIGATIONS OFFICE

CROSTON, NANCY A	$229
DOHERTY, THEODORE L III	$750
MCGOVERN, JOSEPH B	$1,300
SCHWARTZ, NED E	$1,500
TOTAL	**$3,779**

BALTIMORE REGIONAL INVESTIGATIONS OFFICE

BRAUTIGAM, ROBERT C	$750
SHIRING, DOUGLAS J	$250
TUCKER, GERARD H JR	$1,300
WATERS, MICHAEL J	$200
WATERS, MICHAEL J	$457
WATERS, MICHAEL J	$1,370
WOODS, ELISE S	$250
WOODS, ELISE S	$457
WOODS, ELISE S	$1,370
TOTAL	**$6,404**

ATLANTA REGIONAL INVESTIGATIONS OFFICE

DEFAZIO, STEVEN A	$229
GRIFFITH, LAVAN	$457
HAMMER, BARBARA S	$750
LONG, JOHN W	$1,300
MALLORY, JOHN R	$1,300
ROPER, SANDRA M	$257
TOTAL	**$4,293**

CHICAGO REGIONAL INVESTIGATIONS OFFICE

CORSO, VITO	$229
HAMILTON, MICHAEL D	$1,300
HOEFLER, DAVID J	$229
KELLEHER, JAMES G	$1,300
KINSELLA, MICHELLE T	$250
TOTAL	**$3,308**

FORT WORTH REGIONAL INVESTIGATIONS OFFICE

MAHON, JAMES H	$457
MCGRUDER, LISA G	$257
MCGRUDER, LISA G	$250
SPALDING, AMY L	$204
TOTAL	**$1,168**

SAN FRANCISCO REGIONAL INVESTIGATIONS OFFICE

GOTTLIEB, MICHAEL A	$2,500
GOTTLIEB, MICHAEL A	$250
LINKERT, TRISTAN	$229
O'MALLEY, DANIEL PATRICK	$250
PARKER, TIMOTHY N	$229
SAWADA, SYLVIA	$129
SMEDLEY, HANK W	$600
TOTAL	**$4,187**

OFFICE OF LEGAL COUNSEL

CARTWRIGHT, CLAYTON E	$600
TOTAL	**$600**

OFFICE OF DIRECTORATE OF ADMINISTRATION

ARNOLD, WILBERT M	$250
BANAGAN, DEBORA L	$1,300
BANAGAN, DEBORA L	$250
BOWIE, DOROTHY B	$1,300
EICHELMAN, GEORGE K	$1,500
GIBBS, BARBARA E	$250
GLAGOLA, EDWARD M JR	$1,000
GLAGOLA, EDWARD M JR	$250
HEMINGER, JAMES F	$250
MACKALL, LISA T	$250
MEDINA, SYLVIA	$129
PIETRZAK, PATRICK J	$1,000
REVETTA, JACQUELYN W	$750
ROVER, ANA O	$307
ROVER, ANA O	$250
SOMERVILLE, GLENDA P	$750
SOMERVILLE, GLENDA P	$750
VERINDER, SYDNEY H	$1,500
TOTAL	**$12,036**

GRAND TOTAL	**$154,175**

FY 1996 BONUSES AND AWARDS

OFFICE/NAME	**AWARD**
OFFICE OF INSPECTOR GENERAL - IMMEDIATE OFFICE	
POE, MARLENE A	$1,000
TOTAL	**$1,000**

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR AUDITING - IMMEDIATE OFFICE

BROWN, RONALD E	$1,000
DECARLI, RAYMOND J	$6,500
PEREZ, RODOLFO E	$750
ROSE, PETRA	$500
SIMPSON, CLEO	$750
WEINTROB, LAWRENCE	$5,500
TOTAL	$15,000

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR AUDITING - HEADQUARTERS OFFICES

OFFICE OF TRANSPORTATION PROGRAM AUDITS

BESS, JAMES W	$150
BROWN, CLARENCE L	$500
CARLISS, LYNNE A	$150
CORNELL, FIDEL JR	$200
CORNELL, FIDEL JR	$500
CRAWFORD, ORA L	$500
DOBBS, DAVID A	$1,500
DORSEY, KEVIN	$200
EIGENBRODE, ERNEST	$250
EIGENBRODE, ERNEST	$750
FUJIMOTO, CLARENCE S	$500
GIELNER, JAMES A JR	$150
HOLSCHER, ARNOLD R	$500
KAPLAN, RICHARD A	$750
KERR, ROBERT L	$1,500
KILBY, THEODORE M JR	$250
METZGER, STUART A	$1,000
MROZOWSKI, DAVID J	$750
OBINGER, WILLIAM M	$750
OCHS, FRANCIS H	$500
PERSH, JEROME S	$1,000
PRINZBACH, ROBERT F II	$1,000
RALPH, MICHAEL S	$150
RALPH, MICHAEL S	$750
RAVILLE, DANIEL R	$1,000
ROBINSON, ELIZABETH A	$200
ROBINSON, ELIZABETH A	$500
SACHS, THOMAS A	$500
SALLERSON, KEITH R	$150
SANDLER, JACK L	$500
SHANKER, MICHAEL H	$1,000
STULGINSKY, EDWARD M	$750

VASS, SAMUEL S JR	$175
TOTAL	**$19,025**

OFFICE OF INFORMATION TECHNOLOGY, FINANCIAL, AND SECRETARIAL AUDITS

ANTIPOROWICH, BRUCE	$1,000
CAYELLI, JAMES M	$1,000
CHILDERS, JAMES A JR	$1,500
DEGONZAGUE, PHILIP J	$1,000
EMRICK, SANDRA M	$500
FALTER, ROBERT D	$500
FRANCIS, JOHN G	$1,000
HANSON, MARY E	$750
HYLAND, LAURINE	$400
JEFFERSON, DOROTHY M	$500
KUENNEN, PAUL L	$750
LENG, REBECCA C	$1,000
LENG, REBECCA C	$1,000
MCLEAN, ROSETTA W	$500
RIFE, MARLIN B	$500
SUCHER, RICHARD W	$750
TOTAL	**$12,650**

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR AUDITING - REGIONS

NEW YORK REGIONAL AUDIT OFFICE

BOUCHER, PETER R	$250
CRAWLEY, RICHARD G	$750
DOMBISH, DAVID J	$250
GOLDSTEIN, MICHAEL E	$1,500
LAVANCO, TIMOTHY	$250
LAVANCO, TIMOTHY	$500
MCKIERNAN, MICHAEL T	$1,000
MCKIERNAN, MICHAEL T	$1,500
ONG, JEFFREY	$500
SHINN, ROBIN R	$500
TOTAL	**$7,000**

BALTIMORE REGIONAL AUDIT OFFICE

BANKS, GEORGE E	$250
CRANE, BRYAN O	$500
HEDGES, EARL C	$750
NORDHOFF, FREDERICK C	$250
NORDHOFF, FREDERICK C	$500
SMOTHERS, MARY E	$750

WISEMAN, EARLINE	$150
TOTAL	**$3,150**

ATLANTA REGIONAL AUDIT OFFICE

DENMARK, GLORIA	$500
JONES, RONNIE G	$500
KOCH, ROBIN P	$500
LONGTIN, ANNE V	$750
ROBSON, ALAN D	$1,000
WARD, PARD R	$750
TOTAL	**$4,000**

CHICAGO REGIONAL AUDIT OFFICE

BAINES, CHERYL	$750
BELLINO, SAM N	$250
BELLINO, SAM N	$500
HILL. HELEN	$150
HILLSTROM, RAYMOND	$750
NOLL, RICHARD N	$750
ROGERS, JOLENE M	$200
TOTAL	**$3,350**

FORT WORTH REGIONAL AUDIT OFFICE

BARRAS, KERRY R	$250
BARRAS, KERRY R	$1,000
DAFFRON, DAVID A	$750
MCLAUGHLIN, GREGORY E	$250
MECHE, JOHN L	$1,500
MECHE, JOHN L	$1,500
MEEKS, A FAYE	$500
STANCUKAS, STANLEY J	$750
TOTAL	**$6,500**

KANSAS CITY REGIONAL AUDIT OFFICE

ALGER, JANICE S	$500
VANOSDOL, SARA H	$750
TOTAL	**$1,250**

SAN FRANCISCO REGIONAL AUDIT OFFICE

MACEY, SCOTT K	$500
MAJOR, GERALINDE R	$500
OSBORN, JOHN E	$500
TOTAL	**$1,500**

SEATTLE REGIONAL AUDIT OFFICE

BITZER, RICHARD L	$500

DIECKER, JAMES H	$750
LARPENTEUR, RAYMOND A	$500
TOTAL	**$1,750**

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR INSPECTIONS AND EVALUATIONS - REGIONS

WASHINGTON REGIONAL INSPECTIONS OFFICE

MURPHY, DARREN	$1,500
BUZZELLA, LISA A	$500
GARVIN, ANGELA E	$500
HODGES, LINDA L	$500
SIVIY, MICHAEL M	$750
TOTAL	**$3,750**

CHICAGO REGIONAL INSPECTIONS OFFICE

HERDZINA, LARRY K	$500
THOMAS, SHIRLEY J	$500
TOTAL	**$1,000**

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR INVESTIGATIONS - IMMEDIATE OFFICE

ZINSER, TODD J	$1,500
ZINSER, TODD J	$2,000
TOTAL	**$3,500**

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR INVESTIGATIONS - REGIONS

NEW YORK REGIONAL INVESTIGATIONS OFFICE

BRAUTIGAM, ROBERT C	$750
MCGOVERN, JOSEPH B	$500
ROPPEL, ROBERT F	$750
SCHWARTZ, NED E	$1,000
TOMPKINS, WILLIAM P	$1,000
TUCKER, GERALD H JR	$750
TOTAL	**$4,750**

ATLANTA REGIONAL INVESTIGATIONS OFFICE

LONG, JOHN W	$750
MALLORY, JOHN R	$750
SCHAEFER, HARRY	$1,000
TOTAL	**$2,500**

SAN FRANCISCO REGIONAL INVESTIGATIONS OFFICE

BALDWIN, JAMES H JR	$750
KINSELLA, MICHELLE T	$1,000

SMEDLEY, HANK W	$500
TOTAL	**$2,250**
OFFICE OF DIRECTORATE OF ADMINISTRATION	
BANAGAN, DEBORA L	$500
BOWIE, DOROTHY B	$500
DAVIS, SAMUEL JR	$1,000
GLAGOLA, EDWARD M JR	$1,000
GRISER, GLENN C	$1,000
HEMINGER, JAMES F	$1,000
PIETRZAK, PATRICK J	$1,000
REVETTA, JACQUELYN W	$750
VERINDER, SYDNEY H	$1,000
TOTAL	**$7,750**
GRAND TOTAL	**$101,675**

Question. Please provide the Committee a description of the criteria used for awarding payments for SES bonuses, performance awards, and "other" awards.

Answer.

SES Bonuses

Each OIG SES member is provided his/her individual job performance targets and objectives at the beginning of each annual rating period. The following summary ratings are used in OIG to rate SES members:

- Achieved Results - Performance that fully meets, exceeds, or demonstrates sufficient progress toward the attainment of the objective as defined in the performance targets.

- Minimally Satisfactory - Performance that only partially meets or partially demonstrates sufficient progress toward the attainment of the objective as defined in the performance targets.

- Unsatisfactory - Performance that fails to demonstrate sufficient progress toward attainment of the objective as defined by the performance targets.

An OIG SES member becomes eligible for a bonus if his/her rating under the performance targets/objectives is at the "achieved results" level and they have been subject to the targets/objectives for at least 120 days. An SES member who receives an overall performance rating level of minimally satisfactory or unsatisfactory is not eligible for a bonus.

Each fiscal year, the Department provides the Inspector General with the total amount of award money available for the OIG's SES bonuses. In addition, the Office of Personnel Management (OPM) has established minimum and maximum limits on the amount of bonus an individual SES may receive during the year.

The Inspector General provides the SES performance ratings and proposed bonuses to the OIG's Performance Review Board (PRB) for its review. The PRB conducts its review using the following criteria:

- the degree to which performance meets or exceeds work requirements and performance targets/objectives;
- the degree of improvements in efficiency, productivity, and quality of work or service, including any significant reductions in paperwork;
- the effectiveness, productivity, and performance quality of employees for whom the executive is responsible;
- the degree of difficulty of work;
- the timeliness of performance; and
- the relative value of the work to OIG and/or the Department.

After completing its review, the PRB submits to the Inspector General its concurrence or non-concurrence of the ratings and bonuses.

The Inspector General then makes her nominations for SES bonuses, along with the concurrence or non-concurrence of the PRB, to the Department's Executive Resources Review Committee (ERRC). If the PRB did not concur, the Inspector General may still make her nominations to the ERRC with her explanations and reasons for making the nominations. The SES bonuses are paid upon the approval of the ERRC and the signature of the Inspector General.

Performance and "Other" Awards

Similar to SES bonuses, performance awards for all other OIG employees are based on the employees' performance ratings under their performance standards (or, targets/objectives) for the prior rating period. Award amounts are calculated based on employees' grade levels and are reviewed to ensure that available performance award funds are not exceeded.

All OIG employees are also eligible for cash awards granted to recognize and to reward employees based on their high levels of accomplishments or results as well as to provide incentives to encourage future high level achievements.

Further, in accordance with Part 5 of the Code of Federal Regulations, OIG employees are eligible for other incentive awards to recognize specific one-time accomplishments or other noteworthy achievements.

UNIVERSITY RESEARCH EXPENSES

Question. Have any universities been assigned to DOT, i.e., DOT is the designated cognizant agency, for the audit of university research expenses? List each university, and detail how much the IG is budgeting for these reviews.

Answer. DOT has not been designated the cognizant audit agency for any universities. All departmental university research expenses are audited primarily by the Department of Health and Human Services' (HHS) OIG under a reimbursable agreement with DOT/OIG. Accordingly, no funds have been budgeted for DOT/OIG to conduct reviews of university research expenses.

Question. OMB has designated HHS as the cognizant agency responsible for audits of most universities and colleges. How much of the contract audit hours and dollars of the Inspector General or the Department are reimbursed to HHS for university research auditing?

Answer. Over the last 5 years, about 1 percent of the OIG's contract audit expenditures have been for university research auditing. Specifically, from FY 1991 through FY 1995, $157,387 of the OIG's total contract audit expenditures of $16,537,649 were for audits related to university research. In hours, this represents 2,976 out of a total of 306,511 hours.

Question. For fiscal year 1996, the IG calculated a need for 1204 hours for HHS contract audit services, an 86 percent increase over 648 audit hours estimated in 1995. What were the actual audit hours provided in FY 1995? Provide an update of the audit hours in FY 1996, and an estimate of HHS contract audit hours for FY 1997. How many of these hours were spent on university audits?

Answer. In FY 1995, HHS provided 203 actual audit hours for contract audit services. For FY 1996, HHS had provided 500 actual audit hours as of April 30, 1996. For FY 1997, OIG has requested funding for 702 hours of HHS contract audit services. All audits requested from HHS were university audits. OIG's calculations of the hours needed to conduct contract audits (including university audits) are based primarily on the DOT Operating Administrations' projections of anticipated contract activity and related audit needs. Experience has shown these estimates to have varying degrees of accuracy.

UNCONTROLLABLE OVERTIME COSTS

Question. Please update the chart on uncontrollable overtime costs found on page 245 of Senate Hearing 104-76, part 3.

Answer.

Administratively Uncontrollable Overtime Costs

Fiscal Year	Costs
1993	$593,088
1994	$461,685
1995*	$424,611
1996	$0
1997	$0

* FY 1995 administratively uncontrollable overtime costs are through July 8, 1995. OIG replaced administratively uncontrollable overtime with availability pay on July 9, 1995, as required by Section 5545(a) of Title 5, United States Code. Availability pay provides needed compensation to ensure special agents are available for unscheduled duty in excess of a 40-hour work week based on OIG investigative requirements.

Question. In FY 1996 the administrative uncontrollable overtime costs program was to be replaced by "availability pay". This pay will be 25 percent over the rate of basic pay. Please provide the Committee the amount of availability pay of the Office of Inspector General in fiscal years 1995, estimated for 1996, and budgeted for 1997.

Answer.

Availability Pay Costs

Fiscal Year	Costs
1995 *	$187,206
1996	$851,000
1997	$1,062,000

* The FY 1995 cost is for July 9, 1995 through September 30,1995.

TOP TEN AUDITS

Question. Please provide the Committee a listing with a brief description of the top ten audits for Fiscal Years 1995 and 1996 and planned for Fiscal Year 1997.

Answer. The top ten audits for FYs 1995 and 1996, based on information through May 1996 for FY 1996 and the preliminary annual audit plan for FY 1997, are described in the following paragraphs.

Top Ten Audits For FY 1995

1. ADVANCED AUTOMATION SYSTEM PROGRAM OVERSIGHT

The OIG continued its oversight of FAA's Advanced Automation System (AAS) Program. In the October 18, 1993, House Conference Report on the FY 1994 DOT Appropriations Bill, the conferees directed DOT's IG to monitor the AAS program on a continuous basis and report to the Office of the Secretary, and House and Senate Appropriations Committees. The conferees cited concerns about cost overruns, schedule delays, and potential conflict of interest in FAA's monitoring and management of the AAS program. Since major changes were anticipated in the program, specific objectives were announced prior to each audit.

2. MERCHANT MARINE TRAINING INCENTIVES

The objectives of this audit were to evaluate the (a) cost effectiveness of training qualified officers for the U.S. merchant marine; and (b) Maritime Administration's (MARAD) controls to ensure U.S. Merchant Marine Academy (USMMA) and state maritime academy graduates met the obligations they incurred in exchange for financial assistance provided. Mandated by the Merchant Marine Act of 1936, as amended, MARAD continues to operate USMMA although state academies offer comparable education at a lower cost. We estimated that the Federal Government could save between $15 to $26 million annually if responsibility for educating the approximately 960 students presently enrolled at the USMMA is transferred to the MARAD-supported state academies. Further, MARAD's controls over assuring USMMA and state academy students and graduates meet their service obligations were ineffective. MARAD expended over $19.5 million on graduates of the class of 1987 without fully receiving expected benefits.

3. CERTIFICATION OF LOCOMOTIVE ENGINEERS

The objective of this audit was to evaluate the effectiveness of Federal Railroad Administration's (FRA) implementation and enforcement of the certification program for locomotive engineers. FRA oversight of the certification program for locomotive engineers could be improved. Although railroads had up to 3 years to implement locomotive engineer certification programs, about 70 percent of all railroads, including 10 percent of major railroads, had not screened engineers against the National Driver Register (NDR) to identify driving incidents involving controlled substances or alcohol. Some railroads may have used alternative methods to check the NDR; however, the office maintaining the NDR could not identify these railroads. Written certification programs for small railroads also were not always submitted to FRA and reviewed as required. Consequently, railroads were operating trains with engineers whose suitability was unknown.

4. ACCOUNTABILITY AND USE OF AIRPORT REVENUE

In a series of audits beginning in FY 1992, OIG identified several airports, and airport sponsors, that were not complying with grant assurance clauses prohibiting the use of airport revenues for nonairport or nonairport-related purposes. The restriction on use of airport revenue, included in grant assurances made part of Airport Improvement Program grant agreements, was intended to assure that airport users were not burdened by "hidden taxes" to support nonrelated municipal activities and services. Because of the number of instances of inappropriate revenue diversions, Congress requested OIG continue this series of audits into FY 1995. There have been hearings in both the U.S. Senate and U.S. House of Representatives addressing airport revenue diversions.

5. FINANCIAL STATEMENT AUDITS PERFORMED UNDER THE CHIEF FINANCIAL OFFICERS (CFO) ACT OF 1990

The audits of FY 1994 financial statements, required by the CFO Act of 1990, had five objectives. First, the audits determined whether the principal statements, notes to the principal statements, and combining statements presented fairly, in all material respects, the financial position, results of operations and changes in financial position, cash flow, and budgeted and actual expenses for the audited entity in accordance with OMB Bulletin No. 94-01 and/or subsequent issuances. Second, the audits determined whether the component entities each had in place an internal control structure that provided reasonable assurance of achieving established internal control objectives. Third, the audits determined whether the reporting entities had complied with laws and regulations that could have a direct and material effect on the financial statements. Fourth, the audits assessed whether the information and manner of presentation of the entity's annual financial report, including the management information sections, were materially consistent with the information in the principal statements. Finally, the audits assessed internal control risk from the perspective of the existence and completeness of policies and procedures designed to provide reasonable assurance of achieving internal control structure objectives for performance measures.

6. RAILROAD SAFETY PROGRAM

The objective of this audit was to assess the effectiveness of the railroad safety program in ensuring railroads comply with Federal safety laws and regulations.

7. OPPORTUNITIES TO REDUCE ESSENTIAL AIR SERVICE SUBSIDIES

The Office of Aviation Analysis has taken initiatives to reduce Essential Air Service costs, but opportunities exist to reduce costs even further if legislation is passed to eliminate subsidized air service to communities within 70 highway miles of an alternate airport and the Office of the Secretary of Transportation limits service to only one airport.

8. INDUSTRY DRUG TESTING PROGRAM

OST's Drug Enforcement and Compliance Office (Drug Office) effectively issued and promulgated policies and procedures for establishing drug testing programs in transportation industries and assisted the Operating Administrations in implementing their industry specific regulations. However, the Drug Office needed to improve oversight of the six industry drug testing programs to ensure employer compliance. Not all of the Operating Administrations (a) maintained an inventory of employers required to operate a drug testing program, (b) required employers to submit written programs or certifications attesting to the implementation of drug testing, (c) required adequate employer reporting of drug testing results, (d) performed reviews of employers' programs that were comprehensive in nature and sufficient in number relative to the total employer universe, or (e) possessed civil penalty provisions for employer noncompliance. The weaknesses are particularly significant because of the large universe of employers required to perform drug testing and the limited resources available for oversight efforts.

9. USEFUL LIFE OF RAIL CARS

The objectives of this audit were to determine if (a) the useful service life of rail cars could be extended cost-effectively, (b) the Federal Transit Administration (FTA) grantees were rebuilding and overhauling rail cars cost-effectively, (c) grantees were accurately computing peak vehicle requirements (PVR) and maintaining reasonable spare ratios, and (d) FTA appropriately considered PVR and spare ratios in the justification for acquisition or replacement of rail cars.

10. HAZMAT PROGRAM

The objectives of the audit were to determine if the FRA ensures (a) HAZMAT are inspected in compliance with Federal regulations and (b) violations of HAZMAT regulations result in appropriate enforcement actions. FRA Region 7 was taking appropriate enforcement action for violations of Federal safety regulations identified during inspections and investigations of railroads and shippers. Violations were processed timely, appropriate civil penalties were recommended, and follow up action was taken for serious violations. However, the region's HAZMAT Program could be more effective. We found the region had not (a) maintained an accurate and up-to-date list of railroad and shipper inspection points, (b) performed annual inspections of all known shippers, (c) target high-risk shippers for inspections, and (d) review four important safety areas during inspections of railroads and shippers. As a result, the region was not fully meeting its goal to promote rail safety and protect the public against risks to life and property inherent in the transportation of HAZMAT by rail.

Top Ten Audits For FY 1996

1. FINANCIAL STATEMENT AUDITS PERFORMED UNDER THE CFO ACT OF 1990

These audits are to address the FY 1995 financial statements prepared by DOT in accordance with the requirements of the CFO Act of 1990, as amended. We expect the financial statement prepared for the Saint Lawrence Seaway

Development Corporation (SLSDC) will once again be audited by an independent public accounting firm; OIG will perform a quality assurance review of their work. The objective of our quality assurance review will be to ensure the audit performed by the independent public accounting firm was conducted in accordance with the Comptroller General's Government Auditing Standards and the CFO Act of 1990. The audits of all the other FY 1995 financial statements have five objectives. First, the audits are to determine whether the principal statements included in our audit scope, along with related footnotes, present fairly, in all material respects, the pertinent financial activity of the audited entity in accordance with OMB Bulletin No. 94-01 and/or subsequent issuances. Second, the audits are to determine whether the reporting entities each have in place an internal accounting and administrative control structure that provides reasonable assurance of achieving established internal control objectives. Third, the audits are to determine whether the reporting entities have complied with laws and regulations which (a) could have a direct and material effect of the financial statements or (b) have been specified by OMB. Fourth, the audits are to assess whether the information in, and manner of presentation of, the Overview of the Reporting Entity and the Supplemental Financial and Management Information sections of the entity's financial statement package are materially consistent with the information in the principal statements included in our audit scope. Finally, the audits are to assess control risks relative to the policies and procedures designed to provide reasonable assurance of the entity achieving its internal control objectives.

2. SUSPECTED UNAPPROVED PARTS (SUPS)

FAA developed a data base system to record and track SUPs reports and investigative case results. SUPs reports received at the centralized SUPs collection point were timely screened and entered in the SUPs data base. However, SUPs reports sent to FAA, but not directly to the centralized SUPs collection point, were frequently entered into the SUPs data base months after receipt and, in some cases, were never entered into the data base. Overall, we concluded better management controls and a refocusing of the SUPs Program with a clear purpose, dedicated organizational structure, standardized investigative requirements, technical clarification, and inspector training were needed. These improvements will provide a responsive management tool for ensuring appropriate action is taken to remove unapproved parts from the national aviation system and for measuring the incidence and effect of unapproved parts.

3. COMMERCIAL AIRLINE TRAINING PROGRAMS

The objective of this audit is to determine the effectiveness of FAA's oversight of commercial air carriers actions to properly maintain FAA approved training programs for crew members, aircraft dispatchers, flight instructors, and other operations personnel.

4. AIR TAXI AND COMMUTER OPERATION OF AIRCRAFT WITH RECURRING AIRWORTHINESS MAINTENANCE PROBLEMS

The objective of this audit is to determine if FAA Flight Standard's reporting requirements and management controls ensure air taxis and commuter operators remove aircraft from service for needed repair or replacement of master minimum equipment list items as required by FAA regulations. The audit will also determine if air taxi and commuter maintenance reporting to FAA and FAA's use of the reported data are adequate to detect recurring maintenance problems.

5. TRANSPORTATION OF HAZMAT ON THE NATION'S ROADWAYS

This is one in a series of audits being performed to evaluate DOT's HAZMAT Program. This audit will cover the transportation of HAZMAT on the nation's roadways and includes Research and Special Programs Administration (RSPA) and FHWA. The overall audit objectives are to determine if DOT has programs in place which (a) adequately protect the public from HAZMAT shipment incidents; (b) effectively oversee HAZMAT shippers and carriers to ensure reasonable compliance with applicable Federal regulations; and (c) timely identify risks to the public by conducting routing analysis and identifying the safer routes, adapt regulations and surveillance to changing risks assessments, and deter noncompliance with regulations governing transportation of HAZMAT.

6. MOTOR CARRIER SAFETY PROGRAM

The objective of this audit is to evaluate FHWA's policies, procedures, and oversight for conducting compliance reviews of motor carriers' operations to ensure compliance with applicable motor carrier safety regulations. In addition, the audit will evaluate the adequacy of penalties assessed for violations to ensure that a sufficient deterrent exists for maintaining safe vehicles.

7. MANAGEMENT CONTROLS OVER EMPLOYEE RELOCATIONS

The objectives of the audit were to determine whether (a) FAA had adequate controls to ensure that permanent change of station (PCS) moves were necessary, cost effective, and in the best interest of the Government and (b) FAA's plans to reduce costs and improve controls over PCS moves was operating effectively. FAA did not have adequate controls to ensure all PCS moves were in the best interest of the Government nor did FAA fully implement its plan to reduce PCS costs. Specifically, FAA did not restrict short-distance moves in Denver and Chicago. In fact, some employees were paid PCS benefits even though they did not meet Federal Travel Regulation distance requirements, and others were paid PCS benefits while actually increasing their commutes.

8. ACQUISITION OF POWER SYSTEMS IN THE NATIONAL AIRSPACE SYSTEM (NAS)

The objectives of this audit are to determine whether acquisitions of power systems are timely, economical, adequately meet environmental requirements, and effectively support NAS implementation plans.

9. EXEMPTIONS AND WAIVERS TO FEDERAL AVIATION REGULATIONS GRANTED BY FAA

The objectives of this audit are to (a) evaluate the FAA's processes to grant exemptions and issue waivers, deviations, and authorizations to regulatory requirements; (b) analyze the types of exemptions granted and waivers, deviations, and authorizations issued; and (c) assess their reasonableness.

10. FOLLOWUP AUDIT ON THE FAA's AVIATION INSPECTION PROGRAM

The OIG's report on FAA's Aviation Inspection Program, R6-FA-2-084, May 29, 1992, identified serious deficiencies in FAA's oversight of air carriers. The objective of this audit is to evaluate FAA's corrective actions taken in response to that report and to assess the current effectiveness of FAA's Aviation Inspection Program.

Top Ten Audits Planned For FY 1997

1. FY 1996 DOT CONSOLIDATED FINANCIAL STATEMENT

The scope of our work is dependent upon the consolidated financial statement DOT ultimately prepares for FY 1996. DOT's CFO organization has decided to prepare a single column consolidated financial statement for all activity, and in March 1996, they requested and received a waiver from OMB exempting DOT from having to prepare the Statement of Cash Flows and the Statement of Budgetary Resources and Actual Expenses. Further, since this will be the first year for preparing and auditing the DOT consolidated financial statement, audit work for rendering an opinion will be limited to the Statement of Financial Position and associated notes.

With the possible exception of our work at SLSDC, our audit of the consolidated FY 1996 DOT Financial Statement has five objectives. First, the audit is to determine whether the Statement of Financial Position, along with related notes, presents fairly, in all material respects, the financial position of DOT in accordance with OMB Bulletin No. 94-01 and/or subsequent issuances. Second, the audit is to determine whether the Department has in place an internal accounting and administrative control structure that provides reasonable assurance of achieving established internal control objectives. Third, the audit is to determine whether the Department has complied with laws and regulations which (a) could have a direct and material effect on the financial statements or (b) have been specified by OMB. Fourth, the audit is to assess whether the information in, and manner of presentation of, the Overview and the Supplemental Financial and Management Information sections of the consolidated financial statement package are materially consistent with the information in the consolidated Statement of Financial Position. Finally, the audit is to assess control risk relative to the policies and procedures designed to provide reasonable assurance of the entity achieving its internal control objectives.

Financial statement information on SLSDC may or may not be incorporated into the consolidated departmental financial statement for FY 1996. If not incorporated, a separate stand-alone financial statement would be prepared for SLSDC and once again audited by an independent public accounting firm. In that event, we will perform a quality assurance review of the contractor's work. The objective of our quality assurance review will be to ensure the audit performed by the independent public accounting firm was conducted in accordance with the Comptroller General's Government Auditing Standards and the CFO Act of 1990, as amended.

2. OVERSIGHT OF NEW ENTRANT AIR CARRIERS

The objective of this audit is to evaluate FAA oversight of new entrant air carriers. We will determine if FAA is providing effective oversight of new entrant air carriers with nontraditional operating structures and evolving operating performance.

3. SUSPENSION AND REVOCATION OF PILOT CERTIFICATES DUE TO ALCOHOL AND/OR DRUGS

The objective of this audit is to evaluate FAA actions to suspend and/or revoke the pilot and medical certificates of those airmen with identified alcohol and/or drug problems.

4. INSPECTION AND ENFORCEMENT ACTIVITIES AT UNITED STATES BORDERS

The objective of this audit is to evaluate the effectiveness of the FHWA's inspection and enforcement of Federal motor carrier and HAZMAT safety standards at United States borders (Mexico and Canada). In addition, we will identify funds allocated by Federal, state, and local governments to support inspection and enforcement activities at border crossings.

5. HAZMAT ON TRAINS

The objectives of this audit are to determine whether (a) FRA is adequately inspecting rail cars containing HAZMAT for proper marking and placarding upon entering the United States, and ensuring train crews have knowledge of the location of those cars, and (b) high-risk track (track carrying HAZMAT) owned by private industry is being adequately inspected by FRA.

6. HH-65 FLEET MODERNIZATION PROGRAM

The objectives of this audit are to evaluate the adequacy of USCG's (a) decision to modernize the HH-65s, and (b) contracting actions to modernize the system.

7. ADVANCED AUTOMATION PROGRAM OVERSIGHT

OIG plans to continue its oversight of FAA's Advanced Automation Program (AAP), previously referred to as the Advanced Automation System (AAS). In the October 18, 1993, House Conference Report on the Fiscal Year 1994 DOT Appropriations Bill, the conferees directed DOT's IG to monitor the AAP on a continuous basis and report to the Office of the Secretary, and House and Senate Appropriations Committees. The conferees cited concerns about cost overruns, schedule delays, and potential for conflict of interest in FAA's monitoring and management of the AAP. Specific objectives will be announced prior to each audit.

8. STAFFING WITHIN THE CONTROLLER WORKFORCE

The objectives of this audit are to determine (a) whether FAA staffing standards for the controller work force sufficiently forecast the number of personnel necessary for Air Traffic to fulfill its mission and (b) the adequacy of FAA's actions and plans for distributing the controller workforce among facilities to resolve staffing imbalances.

9. CERTIFICATION OF TRANSPORT AIRCRAFT

The objectives of this audit are to determine whether the FAA's Transport Airplane Certification Directorate ensures (a) aircraft comply with applicable requirements before being certified for use in domestic passenger or air freight operations, and (b) subsequent safety problems are corrected timely.

10. COORDINATION OF RESEARCH AND DEVELOPMENT

The objective of this audit is to determine whether the Operating Administrations could improve coordination of research and development missions, programs, functions, and facilities to provide more effective and efficient use of DOT resources.

Question. Please provide the Committee a chart similar to that found on page 281 of last year's hearing record which lists the ten most staff-intensive audits for Fiscal Year 1996.

Answer. The following is a listing of the ten most staff-intensive audits for FY 1996.

Staff Months	Costs	Project Number	Title	Operating Administration
68	$392,133	5S80035000	HIGHWAY TRUST FUND FINANCIAL STATEMENTS	FHWA NHTSA FTA
64	$369,067	5S8002S000	MOTOR CARRIER SAFETY PROGRAM	FHWA
54	$311,400	6D8001D004	FINANCIAL STATEMENT AUDIT MARAD	MARAD
49	$282,567	6D8001D001	FINANCIAL STATEMENT AUDIT FAA	FAA
48	$276,800	6380013000	FINANCIAL STATEMENT AUDIT USCG	USCG
43	$247,967	5440034000	CONTROL OVER FEDERAL AID HIGHWAY CONSTRUCTION PROJECTS	FHWA
38	$219,133	5940049000	MARINE LICENSING FEES	USCG
32	$184,533	5640076000	AVIATION INSPECTION PROGRAM	FAA
27	$155,700	6D8001D003	FINANCIAL STATEMENT OST	OST
24	$138,400	6D8001D009	FINANCIAL STATEMENT RSPA	RSPA

TOP TEN INVESTIGATIONS

Question. Please update the chart found on page 283 of last year's Senate hearing record regarding the top ten investigations. Provide information for fiscal years 1995 and 1996, and planned for fiscal year 1997.

Answer.

Fiscal Year 1995

Project Number	Category	Staff Days	Dollars Expended
39R0019001	Grant Fraud	473	$170,123
54P0024000	SUPs	188	$58,695
34P0034001	Motor Fuel Excise Tax Evasion	232	$54,277
52R0012001	SUPs	211	$51,419
36P0026012	SUPs	179	$46,429
49P0079000	SUPs	142	$44,043
23P0093003	Motor Fuel Excise Tax Evasion	191	$45,365
29R0439001	False Statements	181	$42,537
5IR007I001	Misconduct	146	$36,304
25R0095001	Grant Fraud	137	$31,784

Fiscal Year 1996 (October 1, 1995 to June 5, 1996)

Project Number	Category	Staff Days	Dollars Expended
39R0019001	Grant Fraud	197	$63,310
55R0155001	Grant Fraud	188	$58,395
24R0384001	SUPs	142	$47,133
69R0029001	Grant Fraud	129	$43,500
54R0124001	SUPs	120	$41,948
62P0022000	SUPs	132	$41,290
54R0104001	Minority Business Enterprise Fraud	121	$39,677
42R0122001	HAZMAT	121	$37,553
62R0222001	False Claims	111	$34,486
22R0262001	SUPs	109	$33,806

OIG is unable to forecast future investigative hours for FY 1997 because the identity of such investigations are unknown at this time. However, it is projected that the majority of the OIG's investigative resources with be applied to three areas of significant emphasis: SUPs, Motor Fuel Excise Tax Evasion, and HAZMAT.

DEFENSE CONTRACT AUDIT AGENCY (DCAA)

Question. Please update the chart found on page 284 of last year's Senate hearing record which shows the actual contract audit hours with DCAA for fiscal years 1995, 1996, and budgeted for 1997.

Answer. The contract audit hours shown in the following chart represent cumulative hours for the three audit organizations which provide contract audit services to the OIG: the DCAA, HHS, and the Environmental Protection Agency (EPA). About 99.5 percent of the actual hours for FYs 1994 and 1995 shown in the chart are for DCAA contract audit services. In FY 1994, actual audit hours for HHS and EPA combined totaled 399 and in FY 1995, their combined actual hours totaled 203. For FY 1996, OIG estimates total audit hours for HHS and EPA combined to be 1,404; and for FY 1997, OIG has budgeted 902 total audit hours for HHS and EPA.

Contract Audit Hours

Operating Administration	1994 Actual	1995 Actual	1996 Estimate	1997 Budget
FAA	35,918	41,839	27,927	15,054
USCG	6,621	7,671	3,330	3,306
MARAD	2,464	3,161	8,879	3,799
OST	700	113	555	317
FHWA	3,696	1,877	5,549	2,532
NHTSA	538	405	1,223	475
RSPA	4,163	5,022	4,994	5,018
FRA	1,015	230	555	158
FTA	1,291	980	3,884	1,899
SLSDC	0	0	0	0
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Total Hours	56,406	61,298	56,896	32,558*

* Reflects the number of audit hours obtainable with the reduced funding level requested for FY 1997, which our budget submission acknowledges is not enough to cover expected costs. Accordingly, DOT is proposing in its FY 1997 budget request that Operating Administrations be authorized to fund any additional audit hours they request.

Question. The Inspector General's budgeted hours for contract audits for DCAA, HHS, and EPA have ranged from actual hours being 26 percent less than what was budgeted to being 5 percent more than what was budgeted. Please describe what determines the total contract audit hours entered into in any fiscal year, and explain why the range of difference between actual and estimated hours is so great.

Answer. The total contract audit hours entered into in any fiscal year is determined, first and foremost, by the level of funding authorized. The number of hours needed, however, is dependent on numerous other factors, many of which vary widely from contract to contract and are thus extremely difficult to project with accuracy. For example, the number of hours required for a claims audit--whether for a termination claim audit or an equitable price adjustment claim audit--will depend on the characteristics of the specific contract and contractor involved. However, at the time the Operating Administrations must provide us their annual projections of contract audit needs, they have no idea which contracts and contractors will be involved in claims during the ensuing fiscal year. Similarly, a major factor in determining the number of hours required for a preaward audit is the number of proposals submitted on the associated solicitation. This is another variable which cannot be predicted in advance.

We base our budget estimates for contract audit funding on a combination of anticipated contract audit services needed and historical data on actual audits completed. We first obtain from each Operating Administration the number of contract audits, by type and size of contract, they anticipate needing from DCAA, HHS, and EPA. We also compute the average audit hours expended by DCAA, HHS, and EPA per audit using the most recent data available for each contract type and size. We then multiply the Operating Administrations' anticipated audit requirements by the average hours for each contract type and size to determine total estimated work hours. In some years, the level of anticipated contract audit activity does not materialize for reasons beyond the OIG's control, such as unforeseen Operating Administration budget constraints which reduce planned procurement activity, and changes in procurement priorities. In other years, such as in FYs 1993 and 1995, more contract audit activity was ultimately needed than what was budgeted for due to circumstances which could not be anticipated at the time of the budget submission. For example, in FY 1993, DOT experienced an unanticipated large volume of preaward audit requests from FAA and RSPA. Similarly, in FY 1995, more audit work was needed than originally anticipated for equitable adjustment and termination claims related to MARAD ship manager contracts and FAA's Advanced Automation System Program.

Question. In fiscal years 1991 through 1994 the actual contract audit costs were approximately 11 percent less than the originally budgeted costs. If the funds are not used for contract audits as originally intended, how are excess funds used?

Answer. In years when the budgeted funds exceeded actual contract audit costs, such as FYs 1991, 1992, and 1994, the excess was reallocated to fund other general operating expenditures related to OIG activities. However, this situation did not occur in either FYs 1993 or 1995, when actual payments exceeded the budgeted amounts as follows:

Fiscal Year	Budgeted Costs	Actual Costs
1993	$ 3,641,000	$ 3,751,310
1995	3,492,000	3,559,382
	------------	------------
Total Costs	$ 7,133,000	$ 7,310,000

Question. What has been the experience in fiscal years 1995 and 1996?

Answer. The collective contract audit costs pertaining to DCAA, HHS, and EPA for FYs 1995 and 1996 are shown below.

Fiscal Year	Budgeted Costs	Actual Costs
1995	$ 3,492,000	$ 3,559,382
1996	* 2,536,500	** 1,598,516

* The original budgeted amount was $3,460,000. However, OIG reduced funding for contract audit services to $2,536,500 as part of the OIG's share of the $25 million Departmentwide reduction mandated by the Congressional Conference Report on DOT's FY 1996 budget.

** FY 1996 year-to-date through 4/30/96

CHIEF FINANCIAL OFFICERS ACT

Question. Please update the chart found on pages 285 and 286 of Senate Hearing 104-76, part 3 which shows the amount of funds and staff time expended in meeting the requirements of the Chief Financial Officers Act for fiscal years 1995, estimated for 1996, and budgeted for 1997.

Answer. The following chart updates funding and staff time information provided for last year's Senate hearing record regarding financial statement audit work performed at DOT under the CFO Act.

Financial Statement Audited	Staff Years	Dollars
Fiscal Year 1995 (Actual):		
Federal Aviation Administration	14.5	$984,851
Highway Trust Fund	11.5	770,040
Maritime Administration	8.4	565,124
United States Coast Guard	7.0	486,728
Office of the Secretary	6.1	407,117
Federal Railroad Administration	2.7	180,792
Research and Special Programs Administration	4.5	313,853
Saint Lawrence Seaway Development Corporation	0.1	8,840
Washington Metropolitan Area Transit Authority	0.5	33,480
Total Fiscal Year 1995	55.3	$3,750,825
Fiscal Year 1996 (Actual):		
Federal Aviation Administration	4.2	$290,640
Highway Trust Fund	5.7	394,440
Maritime Administration	4.6	318,680
United States Coast Guard	4.0	282,276
Office of the Secretary	2.3	159,160
Federal Railroad Administration	1.6	110,720
Research and Special Programs Administration	2.0	146,015
Saint Lawrence Seaway Development Corporation	0.1	6,920
Subtotal Fiscal Year 1996	24.5	$1,708,851
Fiscal Year 1996 (Estimated):		
FY 1996 Consolidated Financial Statement	15.0	$1,066,592
Grand Total Fiscal Year 1996	39.5	$2,775,443
Fiscal Year 1997 (Estimated):		
Saint Lawrence Seaway Development Corporation	0.1	$7,130
FY 1996 Consolidated Financial Statement	11.4	842,820
FY 1997 Consolidated Financial Statement	11.5	839,950
Total Fiscal Year 1997	23.0	$1,689,900

Notes for Clarification:

Beginning with FY 1996, DOT will prepare one consolidated financial statement which will include all financial activity for the Department. The OIG's efforts will be directed to auditing this consolidated statement. OIG will not audit any subcomponent financial statements which may be prepared by individual DOT Operating Administrations.

FAA audit work in FY 1995 included all FAA financial activity. In FY 1996, OIG audit work was limited to a followup of known existing material internal control weaknesses.

Highway Trust Fund audit work included all trust fund activity in FYs 1995 and 1996.

MARAD audit work included all CFO Act accounts in FYs 1995 and 1996, and also included the Statement of Operations in FY 1996.
USCG audit work included all CFO Act accounts in FYs 1995 and 1996.

SLSDC hires an independent public accounting firm to perform annual financial statement audits under the Government Corporation Act. The cost for the accounting firm was $35,000 in FY 1995, $31,000 in FY 1996, and is expected to be about $30,000 in FY 1997. The costs reflected in the chart above are only the OIG resources needed to perform a quality control review of the accounting firm's work.

Washington Metropolitan Area Transit Authority audit work in FY 1995 included the bond issue only. Subsequent financial statements on this program have not and will not be prepared because the bonds were fully repaid in FY 1996.

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

QUESTIONS SUBMITTED BY SENATOR HATFIELD

OFFICE OF PIPELINE SAFETY

ENFORCEMENT RESPONSIBILITIES

Question. Please comment on the ability of OPS to meet its risk-based Pipeline Inspection Priority Program (PIPP) program goals. In which regions were you unable to meet these goals? Please provide a table by region identifying the number of inspections called for under the PIPP and the actual number of inspections conducted.

Answer. Below is a summary of calendar year 1995 inspection activities. The summary shows that OPS met its PIPP goals unless unscheduled or higher priority issues took personnel away from standard inspections. The unscheduled or higher priority issues included accident and special investigations.

1995 Inspection Plan

Region	# Planned Inspections	# Actual Inspections	Total Inspection Units
Eastern	95	56	121
Southern	100	101	180
Central	82	82	241
Southwest	135	88	487
Western	91	127	286
Total	503	454	1,315

Question. For each region in which the PIPP objectives were not reached, please explain why.

Answer. The Eastern Region was unable to meet its 1995 standard inspection goals due to personnel changes and high priority safety issues, i.e., high priority accident and special investigations. One senior inspector resigned halfway through the year and new employees were not brought on board as soon as planned. Establishing a District Office in New Jersey restricted planned inspections. In addition to the personnel changes, inspector time was redirected from standard inspections to high priority inspections of the Colonial and Iroquois pipelines. These high priority inspections followed an accident on a Colonial pipeline and whistle blower allegations about the Iroquois pipeline system's safety.

The Southwest Region was unable to meet its 1995 standard inspection goals due to comprehensive inspections of all the pipelines the 1994 flooding of the San Jacinto River in Texas affected. The post flood inspections prevented standard inspections in January and February 1995. Significant inspector resources were redirected to accident investigation and to work with the United States Coast Guard (USCG), Minerals Management Service (MMS), and OPS Headquarters on initiatives including offshore damage prevention and interagency coordination.

Question. Do you have a staffing allocation model that incorporates risk-based factors into the distribution of Federal pipeline inspectors and state inspectors?

Answer. No. Risk-based factors are being identified. When we finish basing the compliance program on risk, we will consider the factors in allocating staff. We are furthering the transition by conducting more comprehensive, cross-regional inspections, accident investigations, and special project assignments. Better linking Headquarters, the Regions, and our state pipeline partners will help base compliance on risk.

Question. Please bring us up to date on the enforcement activities of OPS. For each of the last three fiscal years, please provide data on all enforcement actions taken by OPS, including the number of enforcement cases opened, closed, and the amount of civil penalty assessments for closed cases. Please compare these data with the number of reportable events, number of deaths and injuries, and any other measures of pipeline safety for hazardous liquids and gases.

Answer.

ENFORCEMENT			
Measures:	1993	1994	1995
Cases Opened*	180	165	13
Cases Closed*	143	130	107
Civil Penalty Assessment	$614,900	$607,000	$339,666
REPORTABLE EVENTS			
Incidents Reported*	450	465	337
Deaths	17	22	18
Injuries	112	120**	61
Property Damage (in millions)	67	130	52

* Includes Warning Letters.

** During the 1994 Texas flooding, several pipelines failed and ignited. The accident reports received from impacted pipeline operators stated that 1,851 claims were received. It is unknown how many of these claims have been validated.

Question. Please provide data on other measures of the productivity and vitality of the OPS enforcement program during the last three fiscal years, including the number of consent orders.

Answer.

RSPA/OPS COMPLIANCE ACTIVITIES			
	1993	**1994**	**1995**
Warning Letters	49	42	63
Civil Penalty Cases	53	41	33
Hazardous Facility Orders/Consent Orders	6	3	0

CIVIL PENALTIES (dollars in millions)			
	1995	1994	1993
Proposed	$0.750	$1.145	$1.217
Collected	$0.239	$0.600	$0.748

OPS ENFORCEMENT ACTIONS			
Year	No. of Enforcement Actions	No. of Warning Letters	Percent of Enforcement Actions that are Warning Letters
1992	150	56	37.3
1993	178	49	27.5
1994	168	42	25.0
1995	132	63	47.7

PERSONNEL ALLOCATION 1992-1995 (Calendar Years)				
	1992	1993	1994	1995
Number of Regional Inspectors + Regional Directors	26	27	31	36

PIPELINE SAFETY INSPECTIONS BY PERFORMANCE MEASURE 1992-1995 (Calendar Years*)				
I. Types of Inspections	Number of Days Inspectors Spent Away from the Office			
	1992	1993	1994	1995
HQ Anti-drug Inspections	66	8	45	6
Standard Inspections	793	313	821	1,141
Follow-up Inspections	28	13	29	79
Specialized Inspections*	16	34	217	118
Construction Inspections	42	80	68	101
Incident Inspections	82	340	210	71
Public Compliant Investigations	22	12	19	62
Federal Monitoring Inspections	166	235	392	308
Other Inspections	42	27	83	26
Total Field Inspection Days	1,257	1,137	1,884	1,912

* OPS inspection planning is on a calendar-year basis.

** Specialized Inspections are performed to evaluate compliance with specific parts of the regulations; e.g., Corrosion, Maximum Allowable Operating Pressures, and Pipeline Design.

PIPELINE SAFETY ACTIVITIES BY PERFORMANCE MEASURE 1992-1995 (Calendar Years)				
Additional Activities (Other than inspections)	Inspection/Field Assignment Days*			
	1992	1993	1994	1995
Program Performance Meetings	171	131	166	328
Training/ Seminars	269	380	347	616
Special Assignments	300	359	316	365
Total days away from office	740	870	829	1,309

Question. How do you measure the effectiveness and value of the OPS enforcement program? What new measures of your effectiveness have you developed since last year?

Answer. An effective compliance program encourages industry to maintain and enhance pipeline integrity. OPS is working with its state partners and the pipeline industry to improve a good transportation safety record that statistically has not significantly changed over the past ten years. We are exploring non-regulatory approaches to improve pipeline integrity and give operators options to correct problems that will have the best long-term safety results. We are updating our regulations to reflect best industry practices by making them more performance-based and less prescriptive. Under this partnership, we seek the best safety solutions and do not collect penalties for insignificant safety violations. This cooperative relationship increases the potential to strengthen pipeline integrity.

A Government/industry team is designing a new performance measurement system to establish a baseline for the safety level operators have achieved under existing minimum Federal safety standards. We are identifying new types of performance measures. Levels of these measures range from operator-specific to global, societal outcomes. Examples include measures of operator performance, such as percent of lines internally inspected and repaired; measures of OPS performance, such as percent of pipelines acceptable risk management programs cover; and overall operator safety performance, such as number of pipeline incidents in high population areas or environmentally sensitive areas. These initiatives demonstrate OPS' commitment to working with industry, our state partners, and other pipeline stakeholders to wisely use resources to better protect people and the environment.

Question. Please prepare a table indicating the number of pipeline safety inspectors on board and a similar table indicating the number of pipeline safety inspector positions authorized for each of the last three fiscal years.

Answer.

NUMBER OF INSPECTORS ONBOARD (as of 6-10-96)			
Region	1996 authorized/ onboard*	1995 authorized/ onboard*	1994 authorized/ onboard*
Eastern	9/7	9/6	3/3
Southern	8/8	8/8	4/4
Central	12/9	12/10	6/5
Southwest	11/9	11/8	7/7
Western	12/8	12/8	5/4

* These numbers do not include Headquarters' inspectors that perform technical work.

Question. How many accident investigations did you conduct during each of the last three fiscal years?

Answer.

ACCIDENT INVESTIGATIONS*			
	1993	1994	1995
Number of Investigations	49	39	21

* There may be several follow-up investigations/ inspections from each accident investigation. These are not included in the number of accident investigations.

RISK ASSESSMENT

Question. Please break out the portions of your budget that are used to further risk management or to assess the consequences of risk. What specific activities will be funded from which sub-accounts? Please compare these planned expenditures to actual fiscal year 1996 expenditures.

Answer. Funding for activities to prepare the risk management program derived from the Operations Account, Risk Assessment and Technical Studies. The risk management program is designed to allow operators maximum flexibility in analyzing risk, both probability and consequences, and choosing the best solution for safety. This program is our primary risk management activity in fiscal year 1996. Planned expenditures are $1.5 million broken down as follows:

About 15 percent ($226,200) was designated for developing risk management protocols and developing and testing a risk management prototype. The prototype is intended to test the technical standard, regulatory framework, and baseline performance measures before demonstration projects begin. It will help design the risk management protocols to be used to evaluate the demonstration projects including how the operators address threats to pipeline integrity, threat consequences, threat reductions, the business process for implementing the project, evaluating the project and including feedback into the project. A task order for $401,033 was awarded, but originally funded to $250,000. More funding is needed to fully fund this task order.

About 15 percent ($226,200) will go for technical help for Joint Risk Management Quality Team (JRMQT) planning, including helping identify program and process requirements for proficient risk analysis, decision-making resource allocation, and program evaluation. Funds are used for facilitating meetings, preparing agendas, task assignments, presentations at meetings, information gathering, and preparing meeting minutes. A task order for $178,000 was awarded and fully funded.

About 15 percent ($226,200) will be used to investigate how risk management has been used in industry and in other Government agencies with attention to specific variables, applicability to specific regulations, acceptable performance levels, communications, assessment and priority setting tools, and training. A task order for $196,776 was awarded and fully funded.

About 15 percent($226,200) will be used for technical help to the Transportation Safety Institute for an industry/Government training plan, a risk management glossary, a tutorial, training material, and a final report. A task order estimated at $281,000 will be funded at about $200,000 when more funding is received.

About 20 percent ($301,600) is projected for monitoring and evaluating the test demonstration (prototype) project. About two and a half percent ($45,000) will be used for project management help for the risk management task orders identified above. This task order has not been developed and will not require funding until fiscal year 1997. Initial monitoring and evaluating of the prototype have been included in the prototype/ protocol task order.

About 10 percent ($150,000) will be for technical help with two Risk Management public meetings including coordinating planning, identifying JRMQT issues, developing and distributing information, identifying participants and panelists, developing conference proceedings, and attending conferences. A task order for $113,034 was awarded and fully funded.

About seven percent ($105,560) is designated for work on a Risk Management Communications Program including a plan with updates, an audience data base, a bibliography, speaker's bureau reports, bimonthly risk management newsletters, and a risk management video. A task order for $356,614 has been awarded and funded at $150,000. $50,124 will be added when funds are available.

Question. Does OPS apply the largest amount of its resources to the greatest risks?

Answer. OPS is working to reach that goal. The first step in OPS' efforts to allocate resources based on risk was the recently completed first cycle of the Risk-based Priority Planning (RBPP) program. OPS created RBPP to set regulatory priorities. RBPP is based on (1) customers' input on pipeline safety issues' significance and (2) proposed solutions. OPS used RBPP to evaluate OPS mandates and customers' solutions and rank them based on risk reduction and cost effectiveness. One of RBPP's key elements was that all solutions were evaluated without knowing the recommendation's source. These criteria resulted in an unbiased risk reduction ranking for each solution.

Using RBPP on 500 pipeline safety issues and 420 corresponding solutions, OPS crafted a risk-based action plan that outlines priority areas for resource allocation. We are implementing several RBPP findings, including looking for regulatory reform opportunities, improving our data bases, and continuing work on mapping and nondestructive evaluation. OPS presented the results of RBPP at a public meeting in Kansas City, Missouri on January 25, 1996.

RBPP resulted in the recommendation that OPS continue to work on the following projects. The Mapping Quality Team should keep leading efforts to design a national pipeline mapping system. Research and development should address more cost-effective, smart in line inspection tools, leak detection systems, and line location technology. State and region inspectors need cost effective training. A higher quality, more useful incident data base is needed.

OPS is drafting a detailed report on all RBPP evaluated mandates and outlining how we are addressing each based on their risk rankings. We will recommend that some mandates be reconsidered or removed based on their very low risk reduction potential or based more cost effective alternatives.

Question. OPS is moving in the direction of creating a risk-based program. Please clarify what the key components of such a program are and discuss the budgetary implications of such an approach in terms of regulatory staff, inspection resources, and grants to the states.

Answer. The key components are the risk-based prioritization process, risk-based regulations, and the risk management demonstration projects. (1) Risk-based prioritization is the basis for OPS planning. Using contractors, OPS assesses all risks to pipelines and estimates the effectiveness of regulatory or voluntary solutions. (2) Risk-based regulations give operators the chance too more fully use risk-based factors in determining where, how, and to what extent to apply safety measures to protect people and the environment.

OPS staff writes risk-based regulations using in-house and external technical help to analyze and approve these initiatives. (3) The risk management demonstration projects, which will be based on an interim technical standard, regulatory framework and baseline performance measures being produced in fiscal year 1996, will test OPS allowing operators maximum flexibility to use alternative methods to existing regulations to achieve equal or greater safety than exists today. OPS uses contract support for this effort.

Budgetary implications include Headquarters and Regional staff involved in designing, developing, and testing the key components of the risk-based program on a full time basis. Technical teams working on the standard, the framework, a baseline as well as communication and training program, travel in conjunction with the teams' meetings. Inspectors will have to receive risk management training to review and monitor the risk management demonstration projects. state pipeline safety program representatives have been active participants in the technical team meetings and will be advisors for reviewing and monitoring the risk management demonstration projects. More funding is required to pay for the state support.

Question. OPS is developing a detailed risk-based prioritization process that will be used in shaping and improving your regulatory agenda and other aspects of your program. What is the status and success to date of this program?

Answer. OPS recently completed the first cycle of the Risk-based Priority Planning (RBPP) program. OPS created RBPP to set regulatory priorities and to respond to Congress and other mandates. RBPP is based on (1) customers' input on pipeline safety issues' significance and (2) proposed solutions. RBPP evaluated OPS mandates and customers' solutions and ranked them based on risk reduction and cost effectiveness. One of RBPP's key elements was that all solutions were evaluated without knowing the recommendation's source. These criteria resulted in an unbiased risk reduction ranking for each solution.

OPS is drafting a detailed report on all RBPP evaluated mandates and outlining how we are addressing each based on their risk rankings. In some cases, we will recommend that mandates be reconsidered or removed based on their very low risk reduction potential or based on more cost effective alternatives.

A result of the RBBP process is an extensive data base that holds all respondents' issues and solutions. This data base can now be used to identify a wide range of pipeline safety concerns and solutions using actual data received from pipeline operators, state regulators, other Federal agencies, and the public.

Question. How has this process had an impact on the regulatory agenda pursued by OPS?

Answer. Using RBPP on 500 pipeline safety issues and 420 corresponding solutions, OPS crafted a risk-based action plan that outlines priority areas for resource allocation. We are implementing several RBPP findings, including looking for regulatory reform opportunities, improving our data bases, and continuing work on mapping and nondestructive examination. OPS presented the results of RBPP at a public meeting in Kansas City, Missouri on January 25, 1996.

Question. What rearranging of priorities has resulted from this process?

Answer. Several activities were assigned high priority during the RBPP evaluation process. As a result, OPS is addressing new priorities including: requiring operators to specify pipeline toughness when ordering pipe; preventing wrapping tracer wire around plastic pipe; requiring operators to maintain customer-owned service lines; and strengthening inspectors' checklists to evaluate properly the adequacy of cathodic protection design, installation and monitoring.

OPS is reevaluating activities that were assigned low priority during the RBPP evaluation because they do not significantly reduce risk. These activities include requiring drug and alcohol testing, requiring the same safety standards for intrastate pipeline systems as for interstate pipeline systems, and issuing regulations to set qualifications standards for state inspectors as a condition for grants.

Question. Do you have sufficient inspector resources to fully implement your risk-based inspection program?

Answer. We have been hiring engineers to fill the inspection positions and training them to meet our requirements. When recruiting and training is complete and with field engineering support help from the Department of Energy Oak Ridge National Laboratory for limited post accident monitoring and remedial test witnessing, we will have sufficient inspector resources for the risk-based inspection program.

Question. Please explain the difference between the Risk Assessment program activity and the Risk Assessment R&D program. Aren't they duplicative of each other?

Answer. The risk assessment and technical study program are OPS' effort to find nationally cost-effective, risk reducing solutions to threats to pipeline integrity. Our current focus is on building a framework to evaluate operators' use of risk management. Risk assessment research and development analyzes suspected weaknesses or vulnerabilities in pipeline system components. Risk assessment R&D includes the Risk-based Prioritization Program by which OPS ranks its activities based on risk reduction and cost benefit potential.

Question. Do you consider the environmental indexing effort complete? What was accomplished with the $500,000 provided in fiscal year 1996?

Answer. No. The environmental indexing effort is evolving with the workshops on unusually sensitive areas. Funding of $500,000 will be used to collect and index data on public water systems, sole source aquifers, and wellhead protection areas that may be unusually sensitive areas because they are critical to the water supply. We are about to begin collecting and indexing ecologically sensitive areas that may be unusually sensitive areas because of their unique environmental value. We hope that states will help us create, update, and maintain the environmental index. A state agency would become the repository for unusually sensitive area locations in that state. States may require some funding for this support function.

BUDGET AND PERSONNEL CONCERNS

Question. RSPA is proposing about a 9 percent increase in the pipeline safety budget. Please prepare a table showing the growth of this program during the last five years (both in funding levels and personnel).

Answer.

Program Activity	**FY 1992 Enacted**	**FY 1993 Enacted**	**FY 1994 Enacted**	**FY 1995 Enacted**	**FY 1996 Enacted**
Appropriation ($ In Thousands)	13,553	15,050	19,376	37,340	31,448
Personnel FTP	66	72	72	105	105
FTE	66	72	72	90	105

Question. Please prepare a table showing the amount of funding used to improve your information systems during each of the last three years. Why is any increase judged critical at this time?

Answer. An increase is critical as OPS continues work on the National Pipeline Mapping System, participates with the Interstate Natural Gas Association of America (INGAA) and the Gas Research Institute(GRI) on the Incident Reporting and Trending System project, and moves to a program based on risk assessment inspection.

Pipeline Safety Information Systems Expenditures	
Budget Item	**1994 Funding**
LAN Support - completing local area networks in regions	$ 222,000
Managing regulatory development system initial scoping and needs assessment	$ 20,000
Safety issues paper systems initial scoping and needs assessment	$ 20,000
Contractor support for Hazardous Materials Information System	$ 140,000
Total '94 information systems and analysis	$ 402,000
Budget Item	**1995 Funding**
Hardware/software for increased staff	$ 325,000
Drug/alcohol system and risk-based planning computer model	$ 100,000
Contractor support for Hazardous Materials Information System	$ 270,000
Transportation Safety Institute Training Initiative	$ 180,000
VAX maintenance	$ 115,000
Baseline data study	$ 510,000
Software, hardware, and training support to state pipeline safety programs	$ 250,000
Total '95 information systems and analysis	$1,750,000
Budget Item	**1996 Funding**
Upgrade regions to wide area network	$ 160,000
Equipment costs: desktop and notebook computers to meet expanding needs	$ 110,000
Contractors help with Hazardous Materials Information System	$ 340,000
VAX maintenance costs	$ 150,000
Site license costs for software	$ 40,000
Data Baseline Project - Establish performance measures, support risk-based planning, GPRA, and identify outside data sources.	$ 400,000
Total '96 information systems and analysis	$ 1,200,000

Question. Please prepare a chart for overtime, bonuses, travel, permanent change of station, and communications, for fiscal years 1994, 1995, 1996 and budgeted for 1997.

Answer.

Program Activity	Fiscal Year 1994 Actual	Fiscal Year 1995 Actual	Fiscal Year 1996 Estimate	Fiscal Year 1997 Request
Overtime	7,928	840	*Not budgeted	*Not budgeted
Bonuses	12,500	23,000	*Not budgeted	*Not budgeted
Travel	551,000	770,000	693,000	1,142,000
Permanent Change of Station	30,000	31,000	100,000	100,000
Communications	245,000	469,000	428,000	1,064,000

Question. Please prepare a table showing the number of personnel in your regulatory development unit, including economists, during each of the last three years.

Answer.

Program Activity	Fiscal Year 1994	Fiscal Year 1995	Fiscal Year 1996
Total Regulatory Personnel	8*	10*	12*
Economist	1	1	1

* includes one economist position

Question. How did you allocate the user fee between gas transmission lines and product lines for fiscal year 1996? Does this properly reflect the true allocation of your efforts and resources? How is this allocation determined every year?

Answer. We analyzed our planned expenditures for the year to determine the assessments for the liquid and gas pipeline operators. We analyzed our program, including PC&B for inspectors, administration, information systems, compliance, training, risk assessment, and research and development to determine the amount of program expenditures for the gas or liquid programs. We analyzed apportionments for previous years, listened to the liquid and gas pipeline industry's concerns, and calculated a 65/35 split for gas/liquid.

Question. Please describe the status of your mapping initiative. Is the project completed? What is your $400,000 request going to accomplish?

Answer. OPS needs a reasonably accurate and rational depiction of natural gas transmission and hazardous liquid pipelines. To set safety priorities and respond effectively to emergencies, OPS and state agencies need to display pipelines in relation to population, drinking water, environmental areas and other transportation.

The Joint Government/Industry Pipeline Mapping Quality Action Team has assessed mapping alternatives and associated costs to implement a national pipeline mapping system. The Team reported there are no standard mapping products that are accurate and complete in their coverage. The Team recommended a short and a long-term strategy to solve the problem. For the short-term, the Team recommended that OPS use Federal and commercial data bases to meet its immediate analytical requirements. This information will help OPS a little. However, the products cannot be economically adapted to meet long-term requirements. For the long-term, the team recommended a dynamic, multi year partnership with industry, state and Federal agencies to create and use the mapping system. The strategies include:

- Develop, promote, and aggressively communicate pipeline data standards that specific fiscal year the components needed in the data base, including location accuracy, operator identity, and commodity transported. These standards will allow data sharing for decision making and other regulatory and emergency planning needs.
- Formalize the mapping partnership with other Federal and state agencies and industry to create and maintain the national pipeline mapping system.
- Work with one-call systems to improve the data for their pipeline/operator locating systems so that they are geographically referenced and consistent with the data standards.
- Use a decentralized approach to create a distributed mapping system that allows the mapping partners to upgrade and exchange the data from remote locations.

The fiscal year 1996 funds were spent on a vendor product to meet our short-term goals, the hardware and software to create a national pipeline mapping system, and pilot testing approaches for creating a national pipeline mapping system. The remaining fiscal year 1996 funding will be spent implementing the long-term strategies.

In fiscal year 1997, $400,000 will be used to maintain and update the national pipeline mapping system with information from our state partners and pipeline operators.

Question. Please describe in detail your PC&B request for an additional $446,000 from user fees and $14,000 from OPA when you are not requesting additional positions.

Answer. The funds are required to: (1) annualize fiscal year 1996 Cost of Living Adjustments (COLA) and Locality Pay, (2) pay for the fiscal year 1997 COLA, and (3) pay for merit increases.

Question. Why do you need an additional $900,000 for operating expenses? Please break down the total request in detail, providing a comparison of specific activities between fiscal year 1996 and fiscal year 1997.

Answer. The following table shows activities for which we requested increase. They total $900,000. The largest increase is for travel.

OPS will continue to reach out to the public about risk management, damage prevention, security, research, and regulatory reform. It is important for state and local officials and interest groups to discuss relevant issues, collect information, seek a consensus on program design, pilot testing procedures, implementation processes, audit methods, and program effectiveness measures.

An increase in travel funds is requested in fiscal year 1997 to observe new construction, pipeline rehabilitation procedures, accident follow-up and risk-based inspections. In addition to our standard inspection process at field locations, OPS will meet with industry officials to discuss operators' proposals for alternatives to existing regulations. State participation is expected. OPS inspectors spend two to three days per inspection. In 1997, we expect to have a full complement of inspectors. It is important for OPS technical staff to take part in national technical industry standard meetings and conferences to further regulatory reform. For example, the American Society of Mechanical Engineers, National Association of Corrosion Engineers, and the National Fire Protection Association (NFPA) meet around the country. Participating in these conferences would keep OPS active with the industry's top technical experts.

Actual obligations for travel in fiscal year 1995 totaled $770,000. In fiscal year 1996, we expect to have a full complement, including the 33 new inspector positions authorized in fiscal year 1995. To inspect more pipeline, we are shifting $300,000 from personnel compensation and benefits to travel in accordance with reprogramming guidance. OPS is requesting increased travel funds in fiscal year 1997 so that more new construction, drug and alcohol, and risk-based inspections can be performed. OPS inspectors spend two to three days per inspection. In fiscal year 1997, we will emphasize new construction inspections that may take five to ten days.

Activity	**FY 1996**	**FY 1997**
	($ In Thousands)	
Travel	365	1,142
Communications, utility expenses, and miscellaneous charges	428	470
Buying goods & services from Government accounts (Working Capital Fund)	983	1,064

Question. Please prepare a table indicating the amount appropriated and the amount actually spent for the different major categories and sub-components of the Pipeline Safety budget for each of the last three years. Please explain any deviation of reallocation of funds.

Answer.

(DOLLARS IN THOUSANDS) Program Activity :	FY 1994 Appropriation	FY 1994 Actual Obligations	FY 1995 Appropriation	FY 1995 Actual Obligations	FY 1996 Appropriation	FY 1996 Estimated Obligations
Personnel, Compensation & Benefits						
Derived from Pipeline Safety Fund	4,660	4439	6,038	5,056	7,099	6,799 *
Derived from Oil Pollution Trust Fund	136	133	120	117	133	131
Operating Expenses						
Derived from Pipeline Safety Fund	2,034	1,323	2,650	1,932	2,238	2,538 *
Derived from Oil Pollution Trust Fund	45	45	45	45	45	45
Total Contract Programs	1,858	1,858	9,902	9,902	5,200	5,200
Breakdown of Programs:						
Information Systems	402	402	1,752	1,752	1,200	1,200
Risk Assessment & Technical Studies	355	355	2,250	2,250	1,750	1,750
Compliance	76	76	4,875	4,875	300	300
Training & Information Dissemination	925	925	925	925	850	850
Emergency Notification	100	100	100	100	100	100
National Public Education Campaign	N/A	N/A	N/A	N/A	500	500
Environmental Indexing	N/A	N/A	N/A	N/A	500	500
Implementation of Oil Pollution Act						
Derived from Pipeline Safety Fund			252	252	N/A	N/A
Derived from Oil Pollution Trust Fund	2,268	2,268	2,268	2,223	2,520	1,900
Research and Development	875	728	4,065	2,962	2,000	4,536 **
Grants	7,500	7,483	12,000	11,900	12,000	11,900

*Funds from Personnel Compensation & Benefits were transferred to Operating Expense to pay for Inspector travel.

** Obligations include carryover funds from prior years

OIL POLLUTION ACT (OPA)

Question. Please detail how the $2,520,000 authorized in fiscal year 1996 was used for consulting services to implement the Oil Pollution Act of 1990. How were the fiscal year 1995 funds used? What were the accomplishments and problems associated with this activity?

Answer. History has demonstrated that the OPA program has been very effective in improving oil pipeline operators' ability to respond to oil spills. Three weeks before its major gasoline spill in Gramercy, Louisiana in late May 1996, Marathon Pipeline Company conducted a large-scale spill response exercise. The actual spill response was greatly improved due to the experience gained during the exercise. The successful response to the catastrophic pipeline spill in the San Jacinto River in October 1994 was directly attributed to the responders' participation in a spill response exercise seven months before the actual spill. A unified command during the response to the San Jacinto spill was a direct result of a successful exercise held seven months before the incident. OPS is committed to continually improving the pipeline industry's ability to respond rapidly and effectively to oil spills. Our rigorous plan review and exercise programs are vitally important to accomplishing this goal.

In fiscal year 1996, OPS continued to review and approve revised and newly submitted facility response plans with contractor help. OPS provides plan review findings to operators in a checklist that identifies deficiencies and makes specific recommendations on how to revise the plan in order to bring the Federal Response Plan (FRP) into compliance. OPS also provides operators extensive technical help, meeting with them and talking by telephone to discuss review findings. When necessary, OPS gives examples of best practices to operators as examples of how other operators have been able to comply with our requirements.

In working with operators, OPS emphasizes that each FRP must be tailored to reflect the facility's operating conditions. Even though most operators easily corrected deficiencies in their FRP, it took a few operators several iterations before they developed a satisfactory plan. The most encouraging aspect is that the operators are very cooperative and responsive in their efforts to not only comply with the rule but also to improve their spill response capabilities.

Last year, OPS developed and conducted two area exercises and four tabletop exercises as part of the Preparedness for Response Exercise Program (PREP), which is a cooperative USCG, EPA, OPS, MMS, and industry effort. In fiscal year 1996, OPS conducted 20 tabletop exercises and two industry-led area exercises with contractor support. The area exercises are designed to evaluate the response mechanisms in place in a given area. They are large-scale field exercises which included participants from EPA, USCG, state and local agencies, and pipeline operators. The strategic tabletop exercises are scenario-driven discussions designed to validate the operator's Federal Response Plan (FRP) and ensure the plan is adequate to meet the organization's spill response needs.

Exercises give OPS the chance to assess the operator's ability to implement its FRP and establish an effective unified command with Federal and state responders. Exercises teach participants valuable lessons they can use to refine their response plans. The state and state agency exercise participants, including OPS Regional staff, EPA and USCG field personnel, and state environmental and pipeline safety personnel gain valuable experience in how pipeline operators respond to oil spills.

OPS shares lessons learned from exercises with the pipeline industry and other agencies. To further this goal, we write a quarterly lessons-learned newsletter for pipeline operators, states, and local governments. To develop exercise objectives, OPS analyzed facility response plans to identify industry-wide response planning strength and weaknesses. OPS selects pipeline operators for table top exercises based on risk-based factors including the results of our plan review.

OPA program accomplishments for fiscal year 1995 and fiscal year 1996 include:

1. Approving pipeline operators' oil spill response plans by the 2/18/96 statutory deadline, through open dialogue and extensive cooperation with operators.
2. Developing an exercise program to validate the oil industry's spill management capabilities through table top exercises and area exercises.
3. Conducting a preliminary baseline analysis for Government Performance and Results Act purposes of the pipeline industry's overall preparedness.
4. Producing a reference document entitled, "Guidelines for Developing and Evaluating an Oil Spill Response Exercise," for internal use while we continue to refine our exercise program.
5. Identifying environmental data on areas unusually sensitive to environmental damage from spills.

Question. Please detail how the fiscal year 1997 funds will be used.

Answer. In fiscal year 1997, OPS will conduct 20 tabletop exercises and two area exercises. The 20 tabletop exercises will be held throughout the United states. The area exercises on the PREP schedule include EPA region X (Alaska) and EPA Region IV (Southeastern US), although these locations are subject to change. OPS will continue to document lessons learned in a quarterly newsletter.

OPS will also continue to review and approve facility response plans required under OPA 1990. OPS will devise a new review process for the newly-developed Integrated Contingency Plan (ICP or one-plan) format. OPS developed the one-plan approach with EPA, USCG, OSHA, MMS, state agencies, industry, and environmental groups. The one-plan is a type of consolidated contingency plan format that enables facilities that are subject to several state regulatory agencies to simultaneously satisfy all state contingency planning requirements in a single document.

OPS will continue to compile an environmental sensitivity index, which identifies areas along pipelines that could be unusually sensitive to environmental damage from a spill or release. The environmental indexing effort is evolving through a series of public workshops on unusually sensitive areas because of their importance to the water supply. OPS has the hardware and software that will help with the environmental indexing effort and is collecting and indexing public water systems, sole source aquifers, and wellhead protection areas that are potentially unusually sensitive areas. We are about to begin collecting and indexing ecologically sensitive areas that are potentially unusually sensitive areas. We hope states will help create, update, and maintain the environmental index. Our goal is to have the state agency become the repository for the data on the locations of unusually sensitive areas within that state.

Question. Please provide the Committee with the results of last year's review of the pipeline operators' emergency response plans. Include the number of plans reviewed, the number accepted, and the number of plans which required corrective measures. How do you ensure that your suggestions are incorporated into the plans?

Answer. More than 1,200 facility response plans have been submitted to OPS. Operators designated 850 of these as posing a risk of significant and substantial harm to the environment. All operators with significant and substantial plans got approval letters from OPS by the February 1995 statutory deadline, following a rigorous plan review process.

In the 16 months since February 1995, OPS has continued to review revised and newly submitted plans. OPS receives several plan revisions or newly submitted plans each week. While some of the plan revisions are minor, e.g., changing telephone number listings, and do not necessitate a full review, most of them required significant refinement before OPS was able to approve them. OPS gives operators technical help as they revise their response plans. Some of the plans required several iterations of our review before we were able to approve them.

OPS uses several methods to ensure that our suggestions are incorporated into operators' facility response plans. Before approving a revised response plan, OPS checks to ensure that the operator has adequately addressed our plan review comments. OPS takes a sampling of response plans and verifies the data through a quality control process. A very small percentage of the plans contained outdated or inaccurate information. Another way OPS ensures that operators incorporate our suggestions for improvement is through our exercise program, in which we observe the operators' ability to implement their response plan.

Question. Please discuss the amount of funds spent on spill response exercises during each of the last three years. How much do you expect to spend during fiscal year 1997 and why are these expenses necessary?

Answer. In fiscal year 1994 the OPA program was still in its infancy. Operators were still submitting their response plans to OPS and no exercises were conducted during the plan review development process. In fiscal year 1994 we spent no money on exercises.

In fiscal year 1995, we met the statutory deadline for reviewing and approving the response plans, so we were able to turn our attention to developing the exercise program. OPS used the plan review results to help target operators for exercises. OPS only conducted two tabletop exercises and one area exercise that year, which cost $64,165 for exercises, two thirds of which covered OPS exercise travel costs, and the remaining third was used for contractor help with exercises.

In fiscal year 1996, we conducted 20 tabletop exercises and an area exercise, which is why the costs have increased. As of June 6, 1996, OPS has used $390,621 for spill response exercises. Of that amount, $10,107 has been used for OPS exercise-related travel costs.

In fiscal year 1997, OPS intends to conduct another 20 tabletop exercises and two area exercises at a projected cost of $700,000, most of which will be used for contractor help with area exercises. The exercises are resource intensive and require extensive preparation of objectives, scenarios, communications, and personnel who represent all levels of government and industry as players and observers. The 20 tabletop exercises will be held throughout the United States. Two area exercises are scheduled to take place in fiscal year 1997: one in Alaska and one in EPA Region IV, the Southeastern US. The increased costs are based on estimates for travel and contractors. The fiscal year 1997 costs include producing a lessons-learned newsletter to share with industry and other agencies.

These exercise expenses are essential to get technical help with designing, conducting, and evaluating exercises. Exercises are an essential component of our OPA 1990 program and one of the best ways to measure pipeline operators' capabilities to respond to oil spills.

Question. What aspects and amounts of your user-fee-based programs could be paid with OPA funds? Please explain your response in detail.

Answer. Several aspects of the user-fee programs could be paid with OPA 1990 funds. These include OPS' environmental protection tasks that are designed to minimize the release of oil from pipelines and to mitigate the spills' consequences. Examples of these activities include:

Data analysis, estimated to cost $500,000, which includes collecting and assessing oil spill reports, identifying accident cause and consequence, and evaluating and acting on safety or environmental trends. Spill response technical monitoring, estimated to cost $150,000; requires dispatching personnel to the incident command centers at major spills to integrate public and private sector response, communications, and protective action decisions. The annual pipeline mapping cost of $400,000 entails collecting and digitizing improved pipeline location information from operators and states for use with population, water intake and terrain data to help set priorities for prevention and response planning. OPS budgets $250,000 for identifying and categorizing information on environmental areas that meet criteria we are developing for the most unusually sensitive areas. We hope to have a central repository in each state to efficiently exchange data. OPS uses about 7 FTE, estimated to cost about $500,000, in environmental policy and regulatory development, spill response plan review, and exercise design, conduct, and evaluation.

STATE GRANT PROGRAM

Question. OPS is requesting $1,000,000 for grants to states for the development and establishment of one-call notification systems. How was this amount determined? How do you know this is the appropriate amount or desirable level of funding for this activity? What would an additional $500,000 obtain?

Answer: OPS based the $1 million on state requests for one-call funds in 1995. OPS seeks authority to make grants to worthwhile programs that are not eligible now for one-call funds. The 1996 request was 1.4 million and this was with restrictions for request levels of no more than $50,000 per state. More funds would help to set up one-call programs to address enhanced compliance, communication, public education, legislative help, and excavator and operator training in pipe marking and notification.

Question. Please update the information you provided on the status of state one-call systems. What has been the benefit of past investment in this area under the grant program?

Answer. In the past two years, ten states have passed or improved significant one-call legislation: AL, KY, ND, NE, NJ, NY, SD, VA, WV, and WY. Texas made strong attempts to pass legislation, but failed. Puerto Rico (PR) is seeking legislative authority to create a one-call center. This is a significant increase in one-call activities. OPS has played a key role in encouraging several states to pass one-call legislation.

Only five states (AZ, CT, MA, MN, NH) have a strong one-call enforcement mechanism that includes:

1. A specific agency with jurisdiction over excavators and facility operators.
2. Authority to issue immediate citations and the power to collect penalties.
3. Staff assigned and administrative encouragement to enforce the law.

About 16 states do not require all underground facility operators to belong to one-call organizations. We expect several state legislatures to enact or modify one-call legislation.

About half the states have emergency service available on a 24-hour basis. In states without 24-hour emergency service, excavators have to notify operators of impending excavation after business hours.

In addition to encouraging states to pass one-call legislation, OPS has invested in state one-call programs that have increased public awareness and education programs through seminars, literature, and electronic databases like the Internet. OPS has helped map state pipelines. Other state projects in which OPS participates include:

- getting Geographical Positioning Systems (GPS) and Geographic Information Systems (GIS) technologies
- digitizing pipeline information for use with GIS systems
- producing a statewide excavator's manual
- improving one-call violation case processing.

Question. For each of the last five years, please indicate the number of states that are participating in your hazardous liquid program. Why hasn't this number increased much during the last few years?

Answer: The following number of states participate in our hazardous liquid programs: CY 1996--13; CY 1995--12; CY 1994--12; CY 1993--10; and CY 1992--11. OPS is continuously asking eligible states to enter the hazardous liquid pipeline safety program. About 16 states have no intrastate liquid lines and several other states have a very limited number of intrastate lines. These states do not have an incentive to join the program. Our efforts have resulted in adding three states since 1994. Besides the lack of intrastate pipelines, states declining to enter the program reported limitations due to the difficulty of matching the states' portion of funds and staff, as well as the lack of regulatory authority under state legislation.

Question. Part of the justification for the increase in the pipeline grant program was that with increased funds the states would be encouraged to expand their enforcement responsibilities. Please provide quantitative data on a state-by-state basis indicating whether this has happened.

Answer. OPS has encouraged states to expand their enforcement jurisdiction in the past few years by adding six new gas and liquid programs and ten new areas of Municipal, LPG or master meter operator jurisdiction in their states.

Question. For each of the last five years, please indicate the number of states that have participated in the gas portion of your program.

Answer. In Calendar Years 1992 through 1996, 47 state agencies, Washington, D.C., & Puerto Rico participated in our gas pipeline safety program. The states not participating are Hawaii, Idaho, Maine, and Alaska.

Question. On a state-by-state basis, please indicate which gaps in state enforcement jurisdiction have been filled during the last few years. What is OPS doing to address these gaps?

Answer. The following table shows the new jurisdictions states assumed over the past three years.

New Pipeline Programs	**Municipal Utility Districts**	**Liquefied Petroleum Gas (LPG)**	**Master Meter Operators**
NM (liq)	GA	CA	CA
NY (liq)	KY	KS	KS
SD(gas)	OK		OH
VA(liq)	CA		VA
WA(gas)			
WA(liq)			

OPS is continuously asking eligible states to enter the pipeline safety program. Our efforts have resulted in three states entering the hazardous liquid program and one state entering the natural gas program since 1994.

OPS uses a state's jurisdiction as a performance measure in allocating grants. This gives states a strong incentive to expand their jurisdiction.

States declining to enter the program or expand their jurisdiction reported limitations due to the difficulty of getting funding for the states' portion of funds and staff and the lack of state statutory and regulatory authority.

Question. Please provide an assessment of your monitoring of the state grant program. How has OPS improved various programs?

Answer. Field evaluation scores and other performance measures are used to determine the grant allocation for each state. Each year, OPS evaluates the states' pipeline safety programs based on current performance measures. OPS monitors state inspections to ensure that the Pipeline Safety Regulations are being appropriately enforced. The annually submitted state certifications contain data on such things as adequacy of one-call efforts, field inspection days, the number of adopted regulations adopted, and inspector qualification.

Question. For each participating state, indicate the number of times during each of the last three years that OPS conducted an audit, a joint inspection, and a training activity.

Answer. The following chart illustrates the number of times OPS has conducted an audit, a joint inspection, and seminar or training activity in each state participating in an OPS pipeline safety program.

The number of joint inspections include the number of joint accident response investigations in which OPS has participated. The considerable increase in the number of joint inspections for New Jersey, New York, and Texas in 1994 was due to the accident in Edison, New Jersey; preparation for New York to become an interstate agent; and the floods in Houston, Texas.

The Office of Pipeline Safety has given state inspectors training required for certifying a pipeline safety program. The numbers of students trained are 286, 315, and 279 for 1993, 1994, and 1995 respectively.

State	**NUMBER OF AUDITS**			**NUMBER OF JOINT INSPECTIONS**			**TRAINING/ SEMINARS**		
Total	93	94	95	93	94	95	93	94	95
AL	2	2	2	2	2	2	1	3	1
AZ	2	2	2	3	2	3			2
AR	1	1	1	1	1	1		1	1
CA	2	2	2	2	2	2	2	2	5
CO	1	1	1	1	1	1	1	1	3
CT	1	1	1	1	1	2			
DE	1	1	1	1	1	1			
DC	1	1	1	1	1	1			
FL	2	2	2	2	2	2	2	2	1
GA	1	1	1	1	2	1	1	1	1

State	NUMBER OF AUDITS			NUMBER OF JOINT INSPECTIONS			TRAINING/ SEMINARS		
IL	1	1	1	1	1	1		1	
IN	1	1	1	1	1	1	1		
IA	1	1	1	1	1	1			1
KS	1	1	1	3	2	1	2	3	1
KY	1	1	1	1	1	2			1
LA	2	2	2	2	2	2		1	2
MD	1	1	1	1	1	1	2		
MA	1	1	1	1	1	1			1
MI	1	1	1	1	1	3		1	
MN	2	2	2	2	3	5		2	2
MS	2	2	2	2	2	2			1
MO	1	1	1	1	1	1		1	
MT	1	1	1	1	1	1		1	
NE	1	1	1	1	1	2			2
NV	1	1	1	1	1	1	1		
NH	1	1	1	1	1	1			
NJ	1	1	1	1	7	1		1	
NM	1	1	1	1	1	1	1		3
NY	1	2	2	1	5	7		5	
NC	1	1	1	1	1	1		2	1
ND	1	1	1	1	1	1		1	
OH	1	1	1	2	2	1			3
OK	2	2	2	2	2	2	1	3	3
OR	1	1	1	1	1	1		2	
PA	1	1	1	1	1	2	1		2
PR	1	1	1	1	1	1			
RI	1	1	1	1	1	1			
SC	1	1	1	1	1	1			3
SD			1			1		1	2
TN	1	1	1	1	1	1	1		1
TX	2	2	2	2	44 *	2	1		1
UT	1	1	1	1	1	1		2	
VT	1	1	1	1	1	1			
VA	1	1	1	1	1	3			1
WA	1	1	1	1	1	1		1	2
WV	2	2	2	3	2	2		1	
WI	1	1	1	1	1	1	1		1
WY	1	1	1	1	1	1		3	

* This substantial increase was due to a major flood in October 1994.

Question. In view of the substantial increase in funds allocated for the pipeline grant program during the last few years, have you noted a corresponding increase in the number of state personnel inspecting pipelines? Please provide quantitative data on the extent of any increase. How about in the amount of total state funds allocated for pipeline safety?

Answer: The increase in the performance base allocation has resulted in grants coming closer to meeting the allowed 50 percent funding. The following table shows the grant allocation and number of state inspectors for the years 1993 -1995.

Year	**Grant Allocation**	**Number of State Inspectors**
1995	$12,000,000	309
1994	7,500,000	292
1993	7,000,000	287

Question. Your $14,000,000 grant request is a $2,000,000 increase from fiscal year 1996. Of those funds, the $1,000,000 provided last year for one-call would be split out from the base pipeline safety program. The net effect would be to provide an additional $1,500,000 for pipeline safety grants. Why is such an increase justified?

Answer. The increase in OPS' request for the state pipeline grant program is $500,000. OPS' grant funds request for 1997 is $14,000,000, which includes:

- $12,500,000 to help states carrying out their pipeline safety programs
- $1,000,000 for state one-call notification systems
- $500,000 for state participation in risk management

In 1996, OPS got $12,000,000 for grant funds to help states carry out their programs and $1,000,000 earmarked for damage prevention programs.

In its commitment to pay half the states' costs, OPS expected states to perform better. Performance factors include states' adopting Federal regulations and getting safety jurisdiction over all intrastate pipelines. This year, OPS has a higher request for state program funds because it was not able to pay half the states' costs in 1996. It is in the Federal Government's interest to give the states the financial incentive to remain in or join the pipeline safety program.

Requests for one-call notification systems are based on OPS' continued emphasis on damage prevention and one-call programs, which help with public education, legislative help, and excavator and operator training.

OPS' request for 1997 includes grant funds for state participation in OPS' interstate transmission and hazardous liquid risk management initiative. Most state programs have been limited in scope to intrastate issues. Input from OPS' state partners is essential for comprehensive risk standards, performance measures, and training curriculum design. Their participation will encourage states to integrate risk management concepts into their compliance programs.

Question. Will the additional funds requested for the grant program allow the 50 percent funding goal to be achieved?

Answer. With the additional funds requested for the grant program, we will move closer to 50 percent funding for the base pipeline safety programs. The total request by states for 1996 was $13,157,255.

Question. What was the demand in fiscal year 1996 for one-call grant support from the states?

Answer: In fiscal year 1996, thirty-two states requested $1.4 million for one-call grants. The grant application was limited to $50,000 per state and up to $150,000 for group projects. Based on a statistical analysis of 1995 one-call funds and the 1996 request levels, OPS allocated $806,000 for damage prevention and one-call programs, which pay for public education, legislative help, and excavator and operator training.

Question. Please justify in more detail your request for $500,000 to provide additional risk management assistance to states? How will the funds be used? Why aren't the other two requests for risk management adequate for this purpose?

Answer. With most of the Nation's pipeline infrastructure under the state's jurisdiction, states need to be closely involved in RSPA's evaluating risk management as a safety strategy. For the Risk Management Demonstration period, OPS will focus on interstate transmission and hazardous liquid pipelines, to keep the initial issues to a manageable number while we learn to interact in the new framework.

States were represented on the Risk Assessment Quality Teams and the Risk Management Quality Team and at the November 1995 and April 1996 Risk Management conferences. They are working with OPS and the industry to mold the building blocks of Risk Management Demonstration Projects. These grants will let states consult on approving operators and raise concerns about changes to operations and maintenance on pipelines running through the states. States would bring their expertise to the risk management demonstration project building blocks, including a technical standard, performance measures, curriculum design, and risk communication.

As the safety officials closest to the sites where alternative approaches are being considered, states can give OPS valuable advice and insights on geography, engineering tradeoffs, and their consequences. When OPS, states, and industry design the framework for administering the Risk Management Demonstration Projects, states want to play active roles in reviewing the programs and alternatives operators propose on interstate pipelines that traverse their states. They would help monitor results and best practices. This new role is well beyond the tasks states perform and for which they are funded. We consider this funding mechanism to be most appropriate to fund risk activities for the states.

Question. Why do states need a separate pot of money for risk assessment? Should this be an integral part of the grant appropriation process?

Answer. The $500,000 requested for risk management activities is to allow states to participate from the beginning on risk management so they can be partners in an enterprise which has very strong regional, state, and local consequences. Including these funds into the base pipeline safety grant appropriation would deter states from participating in risk management activities. Grants are reimbursed only after the states spend state funds and are limited to half the state costs. In fiscal year 1996, funds were not earmarked for risk management, causing states to dip into their core program funds to participate.

PUBLIC EDUCATION CAMPAIGN

Question. How does OPS serve as a coordinator or facilitator of a national one-call public education campaign? Why are funds required for this purpose? How were fiscal year 1996 monies spent?

Answer. OPS will establish a Damage Prevention Quality Action Team that will include representatives from the liquid and gas industries, underground facility operators, and the National Association of Pipeline Safety Representatives. The Team will work on a national one-call public education campaign. Underground damage prevention is a national issue that the Federal Government should address and coordinate. We plan to use our funds to work with the Quality Team in an effort to achieve results that are far greater than any that we may achieve separately. fiscal year 1996 funds will be used to retain a contractor to evaluate best practices, print and broadcast materials of state and local one-call centers, pipeline companies, and other utilities for incorporation in the education campaign. The quality action team will oversee the campaign's development.

Question. What is the status of the information clearinghouse described under fiscal year 1996 accomplishments?

Answer. OPS has begun collecting information from state/local one-call centers, pipeline companies, and other utility companies for the one-call information clearinghouse. This information will be given to a contractor who will begin to evaluate and collect print and broadcast materials for the clearinghouse and help create educational materials for the national one-call public education program.

RESEARCH AND DEVELOPMENT

Question. I understand you have signed a Memorandum of Understanding (MOU) with GRI on NDE technology. What are the accomplishments to date?

Answer. GRI and OPS will direct research projects under a memorandum of understanding (MOU). The first project is directing a consortium's work on nondestructive evaluation, focused on detecting mechanical damage. RSPA has approved a statement of work for a consortium to do pigging research. The MOU between OPS and GRI addresses topics including nondestructive evaluation, data analysis, risk management, damage prevention, and mapping standards. OPS and GRI will direct the consortium made up of Southwest Research Institute, Battelle, and Iowa State, which will do technical research on nondestructive evaluation methods. The researchers will study adapting technology now used to detect corrosion so that it detects mechanical damage such as gouges. The research proposal will be funded at $1.7 million for the first two years. On June 20, the Deputy Secretary of Transportation signed the MOU with GRI and awarded the pigging contract to the consortium. The ceremony will be in Washington, D.C. OPS met with the AGA Pipeline Research Committee International (PRCI) and agreed on a regular, cooperative process for planning research and exchanging data. OPS wrote the PRCI before the meeting to commit to setting a research and development agenda with industry, to ask for PRCI information, and to get PRCI's thoughts on OPS research project findings.

Question. Why is an $800,000 increase in NDE requested? What has been accomplished in this area to date?

Answer. The NDE contract with Battelle will be signed in June 1996. The first two years of this contract will evaluate defect detection and analysis methods to establish a baseline from which in-line inspection tools, or smart pigs can be evaluated. The work will concentrate on inspection technologies for mechanical damage and stress-corrosion cracking. Testing and development will take place in laboratory settings and using prototype inspection subsystems in unpressurized piping.

The $800,000 increase is requested for the optional third year of the contract that would verify developing inspection technologies for mechanical damage under pressurized pipeline conditions by testing smart pigs in the 4700-foot flow loop Battelle operates. Pressure and stress affect inspection methods. Operating conditions inside a pipeline are rugged and difficult to accommodate. Verifying and extending the results from unpressurized conditions to pressurized conditions is essential to applying the results of the first two years of this research program.

Question. What technical advances have resulted from research sponsored during the last three fiscal years by the OPS?

Answer: Technical advances that have resulted from OPS-sponsored research during the last three fiscal years is the subject of a study on Supervisory Control and Data Acquisition (SCADA) methods. That study was used to determine the feasibility and costs of requiring pipeline operators to install an SCADA system including a leak detection subsystem, to determine impediments, or what system improvements are needed to minimize the time it takes SCADA systems to detect and locate leaks, and make recommendation to resolve these difficulties.

OPS and GRI will study nondestructive evaluation. This allows operators to test pipelines while they are in the ground and saves the time and expense of digging the pipeline up. Internal instruments commonly called smart pigs are used to do nondestructive evaluation. A contract to conduct this study will be signed in June 1996. The study will improve analytical ability to detect structural wall cracks, flaws, and defects before they fail, particularly those by mechanical damage/outside force or stress corrosion cracking. That research will determine sensor technologies to use, and then to adapt the sensor to a vehicle technology so that we can distinguish between non-damaging metallurgical inclusions in pipe and the more serious stress, gouges, and mechanical hardening.

Question. Please list all of the reports that you have issued as a result of your R&D program during the last few years and the NTIS number for each report.

Answer: Here is a list of the reports we have issued beginning in fiscal year 1990. None of the reports have been placed in the NTIS system. An Examination of the Feasibility of Regulating Excavators, October 1990; Emergency Flow Restricting Devices Study, March 1991; Instrumented Internal Inspection Devices, November 1992; Improving the

Safety of Marine Pipelines, 1994; Remote Control Spill Reduction Technology: A Survey & Analysis of Applications for Liquid Pipeline Systems, September 1995; and Comparison of U.S. with Foreign Pipeline Land Use and Siting Standards and Maintenance, Rehabilitation and Retrofitting Policies and practices, April 1996.

Question. Have you subjected your fiscal year 1997 research budget and agenda to the peer review of your Advisory Committees? If not, would this be worthwhile? Will you submit your fiscal year 1998 research agenda for peer review by your Advisory Committees before your budget request is submitted to Congress?

Answer: The Advisory Committees reviewed and generally approved the fiscal year 1997 research budget and agenda. The Committees will review the fiscal year 1998 research agenda before the budget request goes to Congress.

RISK MANAGEMENT DEMONSTRATION PROJECT

Question. What are your plans for implementing a risk management demonstration project?

Answer. OPS will implement risk management demonstration projects starting with a Federal Register notice. We will use the risk management information industry submits to develop and refine the probable basis for reviewing and monitoring demonstration projects using the technical standard, regulatory framework, and the baseline performance measures. The risk management protocols will be developed and refined with industry's help including prototype demonstration projects. By using risk management alternatives that range in sophistication and development, OPS will eventually refine the information into useful, working case studies of the protocols, baseline, regulatory framework and the technical standard. The prototype will be a training tool for the demonstration project review teams and the monitoring teams.

Once OPS has generally accepted the process, we will invite volunteer companies to apply to participate in the demonstration program. We will use letters of intent from the operators to initially screen the operators based on diversity, application depth, and risk management application type. OPS will meet with interested operators to discuss the demonstrations which will be presented in formal applications. The project review team will analyze and consult with the company to finalize a risk management demonstration project. After the project is approved, a monitoring team will conduct risk management audits based on an inspection plan developed with the operator and based on the operator's internal audit plan. Inspection frequency and other inspection details will be negotiated with the operator before the audits. The monitoring would continue throughout the demonstration project. A report would be developed and sent to Congress when the demonstration project ends to identify demonstration successes and failures.

Question. How will OPS ensure that an equal or greater level of safety is provided by companies participating in the risk management demonstration program?

Answer. OPS will craft an assessment method to evaluate the effectiveness of programs at present and future safety levels. We will be able to assess the level of comparable, overall system safety to assure that risk management equals or exceeds the safety reached under current regulations. The performance measurements the operator and the OPS inspectors use would also be keyed to maintaining comparable safety levels throughout the risk management segment. A decrease in safety below that identified in the risk management demonstration project would be grounds for, at least, proposing and negotiating modifications to the demonstration. At the worst, the project could be terminated if adequate safety could not be maintained through the risk management program.

Question. How will you evaluate safety performance?

Answer. This key element to the risk management demonstration projects will be evaluated through the project specific inspection/audit plans. The operator will be required to furnish an internal audit plan as part of the demonstration project. OPS will use this plan to devise a preliminary inspection/audit plan the operator would get before the audits. OPS' inspection plan will be negotiated with the operator. The negotiation will address inspection frequency and level of inspection. We estimate that at a minimum an annual risk management audit will be conducted on the demonstration projects. More special inspections, as part of the preestablished plan, may be required depending on the type of demonstration project. This could include field anomaly verifications, construction inspections, and observing maintenance alternatives.

Question. Please break out funds requested to conduct this project.

Answer. Technical Support for Risk Management, broken down as follows: About 15 percent is for a prototype risk management project and review protocols to test and review the OPS risk management demonstration projects. This protocol will describe a process to evaluate operators' ability to: (1) comprehensively investigate the potential and likelihood for threats to pipeline integrity; (2)

compare the seriousness or consequences from each cause of threats to pipeline infrastructure; (3) establish targets for remedial activities, management practices, or system renewal to reduce threats to integrity; (4) identify organizational activities and processes for making decisions or commitments that reduce risk and investigate management of business processes that insure the program continues to be implemented; (5) ensure evaluation and measurement systems account for program performance; and (6) ensure that all information and concerns from consultations are addressed in the formal risk management proposals. OPS will develop the prototype to use component risk management examples from industry to test the technical standard, regulatory framework, and performance measures against safety alternatives. The prototype is expected to continually develop and refine the protocols as different information sets are woven into the test.

About 15 percent will be for technical help for Joint Risk Management Quality Team (JRMQT) planning, including helping identify program and process requirements for scientific analysis, decision-making resource allocation and program evaluation. Funds are used for meeting planning, preparing agendas, task assignments, presentations at meetings, information gathering, and preparing meeting minutes. About 15 percent will be used to investigate how risk management has been used in industry and in other Government agencies with attention to specific variables, applicability to specific regulations, acceptable performance levels, communications, assessment and priority setting tools, and training. About 15 percent will be used for technical help to the Transportation Safety Institute for a joint industry/Government training plan, a risk management glossary, a tutorial, training material, and a final report. About 20 percent is projected for monitoring and evaluating the test demonstration project. About two and a half percent will be used for project management help for the risk management task orders identified above. About 10 percent will provide technical help with two Risk Management public meetings including coordinating planning, ensuring identification of JRMQT issues, developing and distributing information, identifying participants and panelists, developing conference proceedings, and attending conferences. About seven percent is designated for a Risk Management Communications Program including a plan with updates, an audience database, a bibliography, speaker's bureau reports, bimonthly risk management newsletters, and a risk management video.

GENERAL QUESTIONS AND REGULATORY CONCERNS

Question. Please prepare a table listing all current rulemakings, indicating the date the rulemaking was started, its current status, topic, expected completion date, and statutorily-set deadline, if any.

Answer: The following chart describes all recently completed and open pipeline safety rulemakings. The notes at the bottom of the chart identify priority rulemakings, rulemakings in response to the Pipeline Safety Act of 1992, and rulemakings in response to the Regulatory Reinvention Initiative (RRI).

Docket No.	**Title**	**Current Phase**	**Schedule**
PS-94[1/8]	Qualification of Pipeline Personnel	Convening Negotiated Rulemaking; NPRM to be published	03/97
PS-101[8]	Excavation Damage Prevention Programs for Gas and Hazardous Liquid Pipelines	Final Rule	04/95
PS-101A[8]	Mandatory Participation in Qualified One-Call Systems by Pipeline Operators	NPRM published 4/95; comments received 5/95; Final Rule being prepared	10/96
PS-106	Transportation of Hydrogen Sulfide by Pipeline	Notice of withdrawal	03/07/96
PS-118[1/8]	Excess Flow Valve Performance Standards	Final rule on EFV performance standards	06/96
PS-118A[1/8]	Excess Flow Valve Customer Notification	NPRM ready to publish after performance standards rule	06/96
PS-121	Pressure Testing of Older Hazardous Liquid Pipelines	Final notice extending compliance date	10/23/95
PS-122	Gas Gathering Line Definition	Supplemental NPRM being drafted	12/96[3]

Docket No.	Title	Current Phase	Schedule
PS-124[7/8]	Regulatory Review: Gas Pipeline Safety Standards	Final rule	06/06/96
PS-125[7]	Regulatory Review: Administrative Practices, Reporting Pipeline Incidents, Gas Pipeline Standards, and Liquefied Natural Gas Facility Standards	Final rule	06/03/96
PS-126	Passage of Instrumented Internal Inspection Devices	Final rule being drafted in response to petition for reconsideration and NPRM	08/96
PS-130	Response Plans for Onshore Oil Pipelines	Interim Final Rule published 1/93; all plans filed and approved 2/95; Final Rule being considered	None
PS-130B	Environmentally Sensitive Areas (ESA)	Transferred to Docket No. PS-140	N.A.
PS-133[1]	Emergency Flow Restriction Devices (EFRDs)	Public workshop held 10/95; NPRM to follow	08/96[6]
PS-135[9]	Customer-owned Service Lines	Final rule published; requires notifying customers re: maintaining service lines	08/14/95
PS-140[1]	Areas Unusually Sensitive to Environmental Damage	Public Workshops extending into 1997 are being held to define unusually sensitive areas for liquid pipelines; NPRM to follow	04/97[3]
PS-141[1]	Increased Inspection Requirements	Public workshop held 10/95; NPRM to follow	08/96[5]

Docket No.	Title	Current Phase	Schedule
PS-143[7]	Periodic Updates to Pipeline Safety Regulations	Final rule	05/24/96
PS-144	Risk-Based Alternatives to Pressure Testing Rule	NPRM for a risk-based alternative to the existing rule for pressure testing of older hazardous liquid pipelines	07/96
PS-145[7]	Pipeline Safety Program Procedures: Updates and Corrections	Final rule	04/96
O	Maps and Records of Pipeline Location and Characteristics; Notification of State Agencies; Pipe Inventory	NPRM	12/96
O	Design and Construction of Welded Breakout Tanks	Consultant is studying; NPRM may follow	None
O1	Hazardous Liquid Gathering Line Definition	Terminated	02/96
O1	Underwater Inspection of Offshore Pipelines	Consultant is studying; NPRM may follow	None
O1	Underwater Abandoned Pipeline Facilities	Consultant is studying; NPRM may follow	12/96
O1	Regulated Gas and Hazardous Liquid Gathering Line Definition	NPRM may be published after gas gathering line is defined under PS-122	None

Question. Please prepare a table listing all rulemakings that you are considering to initiate and the expected date of ANPRM or NPRM.

Answer. RSPA is concentrating on completing the rulemaking actions in the previous table of rulemakings. For example, RSPA is convening a negotiated rulemaking to develop a consensus position on the Qualification of Pipeline Personnel rulemaking. RSPA expects to issue an NPRM in late 1996 and a final rule in Spring 1997. This is an example of working with industry and other stakeholders to produce a consensus regulation that will ensure pipeline personnel engaged in safety-related maintenance and emergency response functions are qualified.

In late Summer, RSPA expects to issue NPRMs on Emergency Flow Restricting Devices and Increased Internal Inspection Requirements. Public workshops on both rulemakings and studies completed should help resolve these matters.

RSPA plans to engage in at least three new rulemakings in the coming year. First, RSPA will thoroughly investigate the design, construction, application, and maintenance of plastic and composite material gas piping to determine how new plastic technologies and several decades of experience with plastic pipe should be reflected in the Pipeline Safety Regulations. The date for an NPRM has not yet been set. Second, in Spring 1997, RSPA will issue an annual update of the Pipeline Safety Regulations to correct, update, and modernize specific sections. This will include incorporating by reference the latest editions of the consensus technical standards, minor technical updates, clarifications, and corrections. These annual updates will reflect input from pipeline companies, state pipeline safety representatives, and the public. Third, RSPA will proceed with new rulemakings, as required, to incorporate risk-based approaches into the regulations wherever possible. An example is OPS considering an industry proposal for an alternative risk-based approach to pressure testing of older hazardous liquid and carbon dioxide pipelines. An NPRM is anticipated in July 1996.

Question. How has OPS followed through on each of the major recommendations or key findings resulting from your pipeline safety summit?

Answer. OPS has evaluated and taken actions on each of the recommendations contained in the report for the National Pipeline Safety Summit, Newark, New Jersey, June 20, 1994. The status of our responses to each issue raised in this report follows.

Issue 1. - The need for partnerships among pipeline operators, regulators, and the public, (i.e., local officials, affected residents).

Action: RSPA has begun a number of initiatives in its pipeline safety regulatory program to foster cooperation, collaboration, and partnerships with the pipeline industry and the public. The Pipeline Infrastructure Study with New Jersey Institute of Technology (NJIT) includes two teams of experts, one from industry and the other from the environmental and public community, which meet with the NJIT staff to provide data for the study.

As part of the President's Regulatory Reinvention Initiative, OPS has conducted grass roots' partnership meetings in Houston, Dallas and Denver to encourage local public participation in regulatory reform and improved customer service for RSPA's pipeline safety program. Another public meeting will be held in St. Louis in late June 1996. RSPA held public workshops in late 1995 to gather information on placing emergency flow restricting devices (valves), modernized leak detection systems, increased inspection by smart pigs, and defining areas unusually sensitive to environmental damage to assure that all the issues are addressed before proposing any rules. One result of these workshops is a determination that a long-term commitment to communication with the industry, Government, and environmental groups is essential to develop pipeline systems that are safe, and are perceived as safe, by the public. For example, our workshop on areas unusually sensitive to damage from liquid pipeline spills demonstrated that the very complicated issues involved required workshops to address in detail each of the many complicated issues in identifying USAs. The next workshop, to be held in June, will be on whether selected public drinking water intakes and sources qualify as USAs.

RSPA is committed to moving toward risk-based principles in its rulemaking process. We help lead the Joint Risk Management Quality Teams that are working on guidelines for risk management programs that could be alternatives to the present prescriptive Federal regulations. The Team members come from industry, other Federal agencies, states, and the public. RSPA will soon issue an NPRM on a risk-based approach to the pressure testing of older hazardous liquid pipelines that were never tested. The approach the liquid pipeline industry suggested would allow a more flexible response to the existing pressure-testing requirement to allow the use of smart pigs, hydrostatic pressure tests, and other methods to assure these older lines are reaching an adequate safety level without OPS imposing unnecessary costs on the pipeline companies and their customers.

Issue 2. - Minimizing Third Party Damage with An Enhanced One-Call System.

Action: RSPA issued a regulation on March 20, 1995, (60 FR 14646) extending the existing excavation damage prevention requirements for gas pipelines in urban areas to gas pipelines in rural areas, and established excavation damage prevention requirements for hazardous liquid and carbon dioxide pipelines. On the same day, RSPA issued a notice of proposed rulemaking (60 FR 14714) proposing to require that operators of onshore gas, hazardous liquid and carbon dioxide pipelines participate in qualified one-call systems as part of the required excavation damage prevention programs. RSPA continues to support the principles in the one-call legislation introduced in the 103rd Congress but never enacted. RSPA has established a new Excavation Damage Prevention Quality Action Team to reduce the number of releases and spills from pipelines through an alliance among pipeline operators, one-call systems, OPS, excavators, and other affected utilities. This effort is aimed at sponsoring a national communication, cooperation, and compliance program to reduce accidents.

Issue 3. - Improved monitoring techniques to reduce potential pipe failures.

Action: RSPA and the Advanced Research Projects Agency, Department of Defense, have entered into a cooperative agreement with the consortium of Litton's Amecom Division and Los Alamos Science Inc. to develop a pollution diagnostic tool using laser technology that can be strapped on an aircraft to identify gas and hazardous liquid leaks from pipelines. In June 1996, RSPA and Gas Research Institute, will enter into a contract with Battelle, Southwest Research, and Iowa State to advance the state-of-the-art in smart pig technology to assess the pipe wall for mechanical damage and stress corrosion cracking that could lead to failure.

Issue 4. - Need for a centralized comprehensive data base related to accidents and incidents in the pipeline industry.

Action: The study with NJIT is taking a fresh look at the accident, incident, and annual data RSPA has been collecting for more than 25 years to determine how it can be used in risk assessment, to identify gaps in the data, and to determine what data is needed. RSPA is developing through a GIS system the ability to depict pipeline geographic location in relation to areas of high-density population, environmental sensitivity, water intakes, and other important areas. The data is needed to assess pipeline systems in determining responses to identified risks, including the decisions of land use officials, emergency responders, and environmental planners.

Issue 5. - Ensure that the pipeline transportation of natural gas and hazardous liquids remains one of the safest modes of transportation.

Action: RSPA will continue to articulate the safety of the pipeline mode of transportation through close work with our stakeholders. The new emphasis on developing regulations using risk-based principles will enable the pipeline industry to commit its limited resources to the highest risk areas and maintain and improve industry safety.

Issue 6. - Maintain or restore public confidence in light of periodic catastrophic pipeline failures.

Action to date: RSPA, by creating an atmosphere of greater openness and participation with the public, industry, the states, and other customers will promote greater confidence in the pipeline program through an awareness of the high level of safety and environmental protection the program fosters. Through research into such initiatives as better leak detection, enhanced pipe wall evaluation by smart pigs, and mapping by GIS, public confidence will be strengthened. RSPA's new Excavation Damage Prevention Quality Action Team will work to promote a national communications campaign to increase the excavating public's awareness of ways in which damage to underground utility facilities can be prevented.

Issue 7. - Maintain Economic Viability of the Pipeline Industry.

Action: RSPA has considered the economic consequences of new regulations for some time. This will continue in the future and become an overriding issue in writing new regulations as Congress mandates that regulations be subjected to a cost benefit analysis. Using risk management will give operators a more cost effective method of operating pipeline systems. Basing regulations on risks will allow companies to respond to safety issues with prudent, effective expenditures.

Issue 8. - Need for new and improved technologies.

Action: RSPA's response to this issue has been addressed under earlier issues including greater use of research, risk assessment/management, and listening to our customers. RSPA's move toward risk-based regulations, in which a range of compliance options is allowed depending on local conditions, will encourage pipeline companies to maintain our pipeline infrastructure in an innovative way.

Question. The Pipeline Safety Act of 1992 required the Secretary of Transportation to establish guidelines for pipeline operators on the identification and mapping of pipeline facilities and gathering lines that pass through environmentally sensitive areas. These guidelines were required to be issued by October 24, 1994. How does your mapping program relate to this provision of law?

Answer. Part of the long term strategy for creating the national pipeline mapping system is creating pipeline data standards that specify the components needed in the data base. OPS expects these data standards will be a part of the mapping requirements for pipelines that pass through unusually sensitive areas. OPS expects these data standards to be complete by the end of this Summer.

OPS is conducting public workshops to identify the areas that are unusually sensitive to damage from hazardous liquid pipeline accidents. Participants at these workshops include other Federal agencies, industry, the public, and interest groups. Five public workshops have been and three workshops are planned. OPS will issue a notice of proposed rulemaking that identifies unusually sensitive areas once the public workshop process is complete.

Question. What standards are currently in place regarding the distance between valves and the number of employees that must be on duty monitoring major transmission gas lines? How do you plan on addressing this issue further?

Answer. The gas piping safety standards cover the minimum spacing of valves on gas transmission pipelines. There are four spacing classifications based on population density with the longest being 20 miles (areas of smallest population density) and the shortest five miles (areas of greatest population density). The regulations do not specify the number of employees that must be on monitoring duty. Instead, performance standards are specified for monitoring normal conditions and responding to abnormal conditions. The operator is responsible for having enough employees to meet these standards. There are no plans to address this issue further.

Question. Please bring us up to date on regulatory accomplishments since last year. Please cite final regulations, NPRMs and ANPRMs issued since last year.

Answer. The following are the regulatory accomplishments for the year ending June 1996 by the categories cited in the question. Actions on information collection burden requirements are not included.

o Issued 6 Final Rules:

08/14/95	Customer-Owned Service Lines; Final rule
04/26/96	Pipeline Safety Program Procedures: Updates and Corrections; Final rule
05/24/96	Periodic Updates to the Pipeline Safety Regulations; Final rule
06/03/96	Pipeline Safety Program Procedures, Reporting Requirements, Gas Pipeline Safety Standards, and Liquefied Natural Gas Facilities Standards; Final rule
06/06/96	Regulatory Review: Gas Pipeline Safety Standards; Final rule
06/14/96	Excess Flow Valve: Performance Standards; Final rule

o Issued 2 NPRMs:

10/23/95	Pressure Testing Older Hazardous Liquid and Carbon Dioxide Pipelines; Notice of proposed rulemaking and Extension of time for compliance
03/04/96	Periodic Updates to the Pipeline Safety Regulations; Notice of proposed rulemaking

- Issued no ANPRMs

- Issued 17 Other Actions:

07/10/95	Areas Unusually Sensitive to Environmental Damage; Extension of comment period
08/14/95	Customer-Owned Service Lines; Response to petition for reconsideration of final rule
08/22/95	Memorandum of Understanding Between Minerals Management Service and RSPA; Notice of extension of comment period
08/29/95	Emergency Flow Restricting Devices; Notice of public workshop
08/29/95	Areas Unusually Sensitive to Environmental Damage; Notice of public workshops
09/21/95	Risk Management and the Pipeline Industry; Notice of a public conference
12/11/95	Customer-Owned Service Lines; Response to a petition for reconsideration
12/20/95	Considerations for a Program Framework for Risk Management Demonstrations
01/04/96	Areas Unusually Sensitive to Environmental Damage; Notice of public workshop
01/19/96	Risk Assessment Prioritizations (RAP) Program, Cycle 1 Completion
02/14/96	Controls of Drug Use and Alcohol Misuse in Natural Gas, Liquefied Natural Gas, and Hazardous Liquid Pipeline Operations Alcohol Misuse Prevention Program; Notice of Management Information System (MIS) Statistical Data
02/14/96	Controls of Drug Use and Alcohol Misuse in Natural Gas, Liquefied Natural Gas, and Hazardous Liquid Pipeline Operations Alcohol Misuse Prevention Program; Availability of guidelines and interpretations
03/07/96	Transportation of Hydrogen Sulfide by Pipeline; Notice of withdrawal of NPRM
03/08/96	Risk-Based Alternative to Pressure Testing Rule; Notice of public meeting
03/26/96	Areas Unusually Sensitive to Environmental Damage; Notice of public workshop
03/26/96	Risk Management; Notice of public meeting
05/31/96	Areas Unusually Sensitive to Environmental Damage; Notice of public workshop

Question. For several years, OPS has been working on regulations dealing with the safety of customer-owned natural gas pipelines coming off of the distribution lines onto residential or farm property, commonly called yard lines. What is the status of your work and rulemaking activities is this area?

Answer. On August 14, 1995, RSPA published a regulation (49 CFR 192.16) that requires operators of gas service lines who do not maintain their customers' buried piping up to building walls to notify the customers of the need to maintain that piping. The regulation requires operators to notify customers by August 14, 1996, or within 90 days after the customer first receives gas at a particular location, whichever is later. As required by section 115(b) of the Pipeline Safety Act of 1992, RSPA has reviewed the effectiveness of Federal and state policies on the safety of customer-owned gas lines. A report is currently being prepared for submission to Congress.

Question. The Congress required the Secretary of Transportation, in the Pipeline Safety Act of 1992, to issue regulations requiring the periodic inspection of natural gas and hazardous liquid pipelines using smart pigs, under circumstances to be determined by the Secretary. When does RSPA expect this regulation to be issued? What will be your regulatory approach?

Answer. This mandated rulemaking would require gas transmission pipelines in high-density population areas and hazardous liquid pipelines in those areas and in certain environmentally-sensitive areas or navigable waterways to be inspected periodically, using internal inspection devices or equivalent means in particular circumstances. A notice of proposed rulemaking is scheduled for publication in August 1996, and a final regulation may be issued in 1997. Our regulatory approach is to define the areas in which pipelines must be periodically inspected. OPS and other Federal agencies will establish criteria to identify the environmentally sensitive areas. Then, we will develop a performance standard to describe the circumstances that will trigger using internal inspection devices or equivalent means. We expect this approach will result in a reasonable regulation that will run parallel to the practices prudent operators follow to maintain sound pipelines.

Question. What requirements from the 1988 and 1992 Pipeline Safety Acts have not been implemented? What are you doing to implement remaining provisions of the acts?

Answer: The following requirements from the 1988 Pipeline Safety Act have not been implemented:

Mapping and Pipeline Inventory. The rulemaking requirements for mapping and pipeline inventory (sections 102 and 202 of the Act) from the Pipeline Safety Act of 1988 have not been implemented. RSPA drafted a notice of proposed rulemaking to address these requirements and other data collection objectives, but because of related requirements in the Pipeline Safety Act of 1992, the notice was never published and must be revised.

RSPA has worked with other governmental agencies and with industry on the strategies for creating a national pipeline mapping system. Part of the strategy for creating this system is developing pipeline data standards that specify the components needed in the database. RSPA expects these data standards will be complete by the end of the Summer and will be a part of the mapping and pipeline inventory requirements.

Master Meter Report. Section 108 of the Pipeline Safety Act of 1988 requires a study of the need for an improved inspection program for master meter systems. A draft report to implement the requirement is being updated to reflect current data on master meter systems. The report is nearing completion.

The following requirements from the 1992 Pipeline Safety Act have not been implemented:

Identifying Unusually Environmentally Sensitive areas. In response to the requirements of the Pipeline Safety Act of 1992, RSPA is developing guidelines to identify areas that are unusually sensitive to environmental damage in the event of a hazardous liquid pipeline accident.

Consistent with the President's regulatory policy (E.O. 12866), RSPA wants to accomplish this congressional mandate at the least cost to society. Toward this end, RSPA is seeking early public participation in the rulemaking process by holding public workshops at which participants may exchange views on relevant issues. RSPA hopes that these workshops will enable Government and industry to better understand the problems and potential solutions before proposed rules are issued.

RSPA has held five public workshops on unusually sensitive areas (USAs). Participants at the workshops have included representatives from the hazardous liquid pipeline industry; the Departments of Interior, Agriculture, Transportation, and Commerce; the Environmental Protection Agency; non-government agencies; and the public.

The first workshop was held on June 15 and 16, 1995, and focused on criteria being considered to determine USAs. A second workshop held on October 17, 1995, focused on developing a process that could be used to determine if an area is a USA. A third workshop held on January 18, 1996, focused on guiding principles for determining USAs. A fourth workshop held on April 10-11, 1996, discussed the criteria, components, and parameters of terms that have been used when describing USAs and the scope and objectives of the additional USA workshops. The fifth workshop held on June 18-19, 1996, discussed primary areas of concern and possible filtering criteria that could be used in determining which drinking water resources are unusually sensitive to damage from a hazardous liquid pipeline release.

RSPA expects to hold three more USA workshops. These workshops will focus on ecological resources, cultural resources, and Indian Tribal concerns. The workshops are tentatively scheduled for September 1996, December 1996, and March 1997. A notice of proposed rulemaking on a definition for unusually environmentally sensitive areas is scheduled for the second quarter of 1997.

Periodic Inspection of Natural Gas and Hazardous Liquid Pipelines Using Smart Pigs. The Congress required the Secretary of Transportation, in the Pipeline Safety Act of 1992, to issue regulations requiring the periodic inspection of natural gas and hazardous liquid pipelines using smart pigs, under circumstances the Secretary would determine. We projected completing this mandated rulemaking, called "Increased Inspection Requirements," in October 1995. However, issuing an NPRM has been delayed due to difficulties in defining areas unusually sensitive to environmental damage, and in balancing costs and benefits. At this stage, the most reasonable regulatory approach appears to be to require the use of smart pigs in piggable line sections when risk factors show that pigging the line section is necessary. An NPRM is scheduled to be issued the third quarter of 1996.

Emergency Flow Restricting Devices (EFRD). The Pipeline Safety Act of 1992 mandated that the Department issue regulations prescribing the circumstances under which operators must use EFRDs and other equipment used to detect and locate pipeline ruptures on hazardous liquid pipelines. An advanced notice of proposed rulemaking that posed a series of questions on operators' experiences with leak detection systems and EFRDs was issued in January 1994.

The negative response from the pipeline industry to the advance notice prompted OPS to conduct a public workshop to get data for developing an NPRM. A public workshop was conducted on October 19, 1995 to discuss the circumstances by which operators of hazardous liquid pipelines would identify ruptures on their pipelines including installing leak detection systems. The workshop participants were mostly representatives from the hazardous liquid pipeline industry and leak detection and valve equipment vendors. They gave their views on establishing criteria for identifying ruptures through leak detection technology. The industry participants stressed that placing remote valves should be analyzed by a risk assessment for each situation. A universal requirement for all pipelines would not be cost effective.

It has taken a long time to deal with the issues of leak detection and EFRDs because resolution depends in part on a practical definition of environmentally sensitive areas. These are very complex issues involving potentially large expenditures by pipeline operators. This is why RSPA is making special efforts to resolve the definition of environmentally sensitive areas and is conducting public workshops to define unusually environmentally sensitive areas. An NPRM on leak detection and EFRDs is scheduled to be issued in the third quarter of 1996.

Identification and Mapping of Facilities. The Pipeline Safety Act of 1992 required the Secretary of Transportation to establish guidelines for pipeline operators on the identification and mapping of pipeline facilities and gathering lines that pass through environmentally sensitive areas. RSPA held a public meeting in June of 1994 and a public workshop on June 15 and 16, 1995. The workshop was held to discuss criteria to identify areas unusually sensitive to environmental damage in the event of a hazardous liquid release. It focused on the following: (1) how to establish criteria that will narrow the number of unusually sensitive environmental areas operators can reasonably be expected to protect; (2) how to establish a process operators can use to identify, using readily available data, which of their pipeline facilities are located in an unusually sensitive environmental area; and (3) how can RSPA and other Federal and state agencies help identify pipeline facilities in unusually sensitive environmental areas in a timely and cost beneficial manner. RSPA is using the results from this and later workshops on October 17, 1995, January 18, 1996, and April 10-11, 1996, to develop a notice of proposed rulemaking on unusually sensitive environmental areas. Information collected at two meetings scheduled for June 18 and 19, 1996, will also be considered.

Definitions for Gathering Line and Regulated Gathering Line. The Pipeline Safety Act of 1992 requires the Department to define the term gathering line in both the gas pipeline safety regulations (49 CFR Part 192) and the hazardous liquid pipeline safety regulations (49 CFR Part 195) considering the function and operational characteristics of the lines. The Pipeline Safety Act of 1992 requires the Department to define the term regulated gathering line in both Parts 192 and 195 considering such factors as the location, length of the line from the well site, operating pressure, throughput, and composition of the gas being transported. An NPRM is scheduled in the fourth quarter of 1996 to propose definitions for gathering line in Parts 192 and 195. Consideration for rulemaking to define regulated gathering line will be addressed after reviewing the comments to the NPRM on gathering line definitions.

Question. Please explain the benefits that your program has received from participation in all regional and national National Association of Pipeline Safety Representatives (NAPSR) meetings. Does the Pipeline program provide financial support for these meetings? Are their alternate ways for Pipeline Safety to be represented without a large number of HQ and regional staff attendance?

Answer. OPS has always supported the NAPSR organization and strongly values the working relationship that has been established between the Federal pipeline safety program and the national organization of state pipeline safety representatives. In the past, OPS has participated in the annual meeting of the NAPSR Board of Directors and sent a delegation to each of the five regional meetings held each year. These meetings are an opportunity for OPS to discuss regional and national issues with our State pipeline partners.

Although OPS supports these meetings by supplying up to 50 percent of the funding of state pipeline safety programs, we have always considered these meetings to be NAPSR's meetings. NAPSR sets the agenda and we are the invited guests. Our purpose at these meetings is to listen to discussions of state and regional issues and brief NAPSR officials on developments in the Federal pipeline safety program. More recently, these meetings have been used to introduce and help plan the emerging Federal, state and industry partnership exploring risk-based approaches to pipeline safety regulation.

OPS and NAPSR have been exploring a number of alternatives to make these meetings more cost effective. With the growth of the Federal program and improved computer-based communications, OPS has more flexibility in planning its NAPSR participation. We have talked about reducing the number of regional meetings or combining them. We have talked about different formats for the regional meetings to better accommodate OPS headquarters participation. Our goal has been to avoid devaluing these important meetings.

In light of the budget constraints we are facing, and our reevaluation of spending practices across the program, we have crafted a solution that we believe preserves the NAPSR regional meeting structure but makes better use of OPS resources. Effective this Fall, we will limit the number of staff members participating in the regional meetings to our headquarters compliance executive, our regional director and our state program liaison. The compliance officer and regional director report directly to the Associate Administrator and will be in a position to speak for him on Federal program issues. In addition, we will attempt to use either video conferencing or other means to make headquarters officials available to the regional meeting attendees. We plan to continue to send a larger group from headquarters to attend the NAPSR National Board meeting.

It is also worth noting that NAPSR exposure to Federal pipeline safety issues and OPS headquarters staff will not be limited to the NAPSR National Board meeting. Our Grant Allocation Committee meetings to set performance standards for state pipeline safety programs are another opportunity for NAPSR members to share their views with us. On national issues, state representatives are active members of the quality team and subcommittees which are developing the guidelines for risk management demonstration projects that are scheduled to begin in 1997. Their participation in these meetings is supported by OPS funding in addition to the State Grant Program. OPS has further involvement with state pipeline representatives through the National Association of Regulatory Utility Commissioners (NARUC) and its Gas Committee and Pipeline Safety Subcommittee. OPS also includes state pipeline representatives in its regulatory workshops and funds that participation. Although we recognize the need to tighten our belts on Federal travel and meeting attendance, we believe that we will be able to continue our high degree of support for and effective interaction with our state pipeline partners.

OFFICE OF HAZARDOUS MATERIALS SAFETY (OHMS)

IMPLEMENTATION OF NEW LAW

Question. Section 116 of P.L. 103-311 requires the Secretary to designate a toll-free telephone number for the reporting of possible violations of hazardous materials transportation laws or regulations. How has this provision been implemented?

Answer. RSPA's toll free number (1-800-HMR-4922) was established on May 8, 1995. Each modal Administration (i.e., USCG, FRA, FAA, FHWA) and RSPA have established their own toll-free numbers to handle the reporting of possible violations in their respective enforcement areas. RSPA's toll-free number is a computer-operated system that allows a caller to transfer to any of the modal administrations without having to place another call. In addition, through RSPA's toll-free number, a person can receive clarification on the Hazardous Materials Regulations (HMR), copies of training materials and copies of recent Federal Register publications. Callers can also leave a message requesting information on the Hazardous Materials Regulations (HMR). We have set a standard that calls requesting assistance with the HMR will be returned within 24 hours.

Question. How well is the system working?

Answer. RSPA receives more than 25,000 telephone calls annually to the Hazardous Materials Information Center. We estimate that approximately 20,000 of these calls are received using the 800 number. Most of these calls (an estimated 80-90 percent) are requests for information on compliance with the HMR, the remaining calls to the 800 number are requests for rulemaking actions, requests for training materials, and reports of possible violations.

Question. How do RSPA, OMC and FRA follow-up on complaints or notices of possible violations?

Answer. Complaints received by RSPA through the toll-free number which allege violations by persons under the jurisdiction of RSPA are electronically routed to the Office of Hazardous Materials Enforcement (OHME) through a "blind" transfer feature incorporated into the system. OHME enters the complaint into its Complaint data set. The complaint is then assigned and investigated. OHME investigates all complaints that it receives. OMC and FRA have incorporated similar procedures into their respective enforcement programs.

Question. What are the FY 1996 and FY 1997 costs associated with this system?

Answer. The cost of the 800 number is part of RSPA's FTS 2000 billing system. We estimate that the cost to operate the overall 800 Hazardous Material Information number is approximately $12,000 per year.

Question. Which provision of current law regarding hazmat safety have not been fully implemented by OHMS? What are your plans to implement these provisions? When will these actions be taken?

Answer. Section 5103(b) of the Federal hazardous materials transportation law requires that regulations be issued to govern all intrastate transportation of hazardous materials. The rulemaking action to accomplish this requirement is currently in process. RSPA issued a supplemental notice of proposed rulemaking on March 20, 1996, to respond to several issues raised, such as "materials of trade," by commenters to the 1993 notice of proposed rulemaking. Based on requests received, RSPA extended the comment period until August 16, 1996. Based on the time required to review comments received in response to the supplemental notice, we will develop a final rule by the end of this calendar year.

Section 5100(e) of the Federal hazardous materials transportation law mandates that shippers and carriers maintain a copy of each shipping paper for hazardous materials shipments for one year after the material is no longer in transportation. This provision of the law is self-executing. However, RSPA believes that this requirement should be incorporated into the HMR. RSPA anticipates that a notice of proposed rulemaking will be issued by the end of 1996 and that a final rule will be issued in FY 1997. RSPA has also submitted a legislative proposal to change the law to require that the one-year time requirement be calculated from the time a hazardous material is offered for transportation or a shipping paper initiated. This change would be beneficial especially to intermediate carriers, who may not have knowledge of when a hazardous material shipment was ultimately delivered to its destination.

Section 5109 of the Federal hazardous materials transportation law mandates requirements for issuance of safety permits to motor carriers that transport hazardous materials. The Federal Highway Administration (FHWA) is to amend the Federal Motor Carrier Safety Regulations to require that motor carriers obtain a safety permit, and RSPA is to amend the HMR to require that shippers of hazardous materials offer the material only to a motor carrier that has a safety permit issued by FHWA. At a minimum, §5109 mandates safety permit requirements for motor carriers that transport: class A or B explosives; liquefied natural gas; materials extremely toxic by inhalation; or a highway route-controlled quantity of radioactive material. On June 17, 1993, FHWA issued a rulemaking proposing regulations for the issuance of safety permits. However, that rulemaking was delayed pending completion of a related action mandated by §5119(a). That action involved a four-State pilot project to test uniform forms and procedures among States for the registration and permitting of motor carriers that transport hazardous materials. A March 15, 1996 report, prepared with assistance from the National Governors' Association and the National Conference of State Legislatures and entitled Final Report: Uniform Program Pilot Project, is currently under review. Because of the complexity of the conclusions and recommendations made in that final report, the anticipated completion date for FHWA's issuance of a final rule on safety permits is undetermined. Because RSPA's issuance of a final rule is contingent upon FHWA's action, we are unable to make a firm commitment as to when RSPA's final rule on safety permits will be issued.

PERSONNEL ISSUES

Question. Please provide the Committee with the current on-board staff count, by position, for the four regional OHMS enforcement offices.

Answer. All four regional OHMS enforcement offices are fully staffed, each having a supervisor and three inspectors.

Question. Please provide a table showing the authorized number of inspectors for each of the last three years, and the number of inspectors actually on-board during this period. Please discuss how many inspector vacancies you now have. When will any vacancies be filled?

Answer. The following table shows the authorized number of inspectors and the actual number of inspectors on-board for the last three years:

FISCAL YEAR	AUTHORIZED	ON-BOARD
FY 1994	24	20
FY 1995	23	21
FY 1996	22	22

Currently, there are no inspector vacancies.

The change in the number of authorized inspectors reflects decisions by the management of the hazardous materials safety program to meet overall RSPA downsizing goals. RSPA has kept its four regional offices fully staffed at four inspectors per office, but was able to reduce the number of headquarters inspector positions by more efficient use of those personnel. When two vacancies opened up in the headquarters unit, one of the positions was reassigned to the Southwest Region, and the other was eliminated by reassigning its duties to an inspector already on board in headquarters.

Question. For each of the key offices under the AA for Hazardous Materials Safety, please prepare a break out of the number of personnel assigned to each office for each of the last three years.

Answer. The following table summarizes the current on-board staff count in the Office of Hazardous Materials Safety for the last three years.

	FULL TIME PERMANENT POSITIONS ON BOARD		
OFFICE	1994	1995	1996
Associate Administrator	6*	6*	6*
Grants Unit	4	**	**
International Standards	2	2	2
Standards	19	18	19
Technology	19	18	17
Exemptions & Approvals	15	15	15
Enforcement	24	24	23
Initiatives & Training	10	10	10
Planning & Analysis	13	16	14
Total	112	109	106

* Includes Administrative Officer, Interagency Coordinator, and clerical support for international standards and interagency coordination.

** Grants Unit was transferred to Planning & Analysis in FY 1995.

Question. How many vacancies in OHMS now exist? When were these positions vacated? For each vacant position, please indicate the dates of the subsequent personnel actions taken to attempt to fill these vacancies?

Answer. There are currently three vacancies in OHMS. The following table summarizes when each position was vacated and the action that has been taken to fill that position.

Position	Date Vacated & Action Taken
Transportation Specialist	Vacated 12/95. Announced 1/2/96, closed 3/22/96, applications being reviewed.
Chemical Engineer	Vacated 1/96. Announced 3/11/96, closed 4/12/96, applications being reviewed.
General Engineer	Vacated 9/95. Announced 3/11/96, closed 4/12/96, applications being reviewed.

NTSB RECOMMENDATIONS

Question. What are the key open recommendations from NTSB that remain? What are you doing about each recommendation? When do you expect to resolve these open recommendations?

Answer. The following are the key open recommendations from NTSB: H-90-91, Remote Controls for Internal Shut-off Valves for Cargo Tanks; H-95-37, Improve Crash-worthiness of the Front Ends of Cargo Tanks; R-92-23, Periodic Testing and Inspection of Rail Tank Cars; A-96-29, Chemical Oxygen Generators As Cargo on Aircraft; and A-96-30, Oxidizers and Oxidizing Materials in Air Cargo Compartments. RSPA actions on these recommendations are summarized below.

H-90-91

In H-90-91, the NTSB recommended that controls for internal shut-off valves on discharge systems be installed at remote locations on all newly constructed and currently authorized Department of Transportation specification cargo tanks used for the transportation of hazardous materials. This recommendation was adopted in a final rule published under HM-183C which addressed the construction of new cargo tanks. The retrofit of previously constructed cargo tanks will be addressed in our next cargo tank rulemaking activity, which will be initiated in the next several months.

H-95-37

In H-95-37, NTSB recommended that RSPA, in cooperation with the Federal Highway Administration, study methods and develop standards to improve the crash-worthiness on the front ends of cargo tanks used to transport liquefied flammable gases and potentially lethal nonflammable compressed gases. RSPA is initiating research to examine the various factors and issues involved in improving the crash-worthiness of cargo tanks. RSPA will take appropriate rulemaking action as dictated by the results of the research.

R-92-23

In R-92-23, NTSB recommended RSPA develop and promulgate, with the Federal Railroad Administration (FRA), requirements for the periodic testing and inspection of rail tank cars to help ensure the detection of cracks before they propagate to critical length (based on a damage tolerance approach). This recommendation was addressed in a final rule published on September 21, 1995 under Docket HM-201 which focused on the critical elements of periodic testing and inspection (including frequency of inspection and tests, structural integrity inspections, thickness tests, and alternative test procedures). RSPA and FRA will continue to work with industry to further develop and refine a damage-tolerance approach to the periodic testing and inspection of tank cars.

A-96-29 and A-96-30

As a result of the ValuJet aviation accident on May 11, 1996, the NTSB issued six safety recommendations to the Department of Transportation: four to the Federal Aviation Administration (FAA) and two to RSPA (A-96-29 and A-96-30). In A-96-29, NTSB recommended that RSPA, in cooperation with the FAA, permanently prohibit the transportation of chemical oxygen generators as cargo on board any passenger or cargo aircraft when the generators have passed expiration dates, and the chemical cores have not been depleted. In A-96-30, NTSB recommended that RSPA, in cooperation with FAA, prohibit the transportation of oxidizers and oxidizing materials (e.g. nitric acid) in cargo compartments that do not have fire or smoke detection systems.

On May 24, 1996, RSPA published an interim final rule prohibiting the offering for transportation or transportation of oxygen generators as cargo in passenger-carrying aircraft. RSPA may make the ban permanent, terminate or modify the ban, or otherwise amend the provisions of this rule. FAA issued an Emergency Interim Notice of Enforcement Policy Stating FAA's intent to vigorously enforce RSPA's interim final rule.

RSPA also published, on June 14 of this year, a Safety Advisory Notice which highlights and reiterates the requirements for offering, accepting, and transporting hazardous materials in commerce by rail car, aircraft, vessel, and motor vehicle. The notice reminds persons involved in the offering for transportation or transportation of hazardous materials of their responsibilities to ensure that hazardous materials are properly identified, packaged, authorized for transportation, handled, loaded, and transported in conformance with the Hazardous Materials Regulations.

ENFORCEMENT ASSISTANCE AND TRAINING FOR STATE OFFICERS

Question. The request for hazmat training is $250,000, $100,000 less that the FY 1996 level of $350,000 (page 30). Please prepare a table describing hazmat training activities over the last three years covering who is trained, number of courses, number of state personnel trained, etc.

Answer.

HAZMAT TRAINING ACTIVITIES

	FY-94	FY-95	FY-96*
Courses offered	16	16	16
Classes conducted	72	123	125
Students:			
Federal	331	571	450
State	398	932	660
Local Govt.	171	235	220
Industry	1,800	1,041	1,440
International	53	6	20
TOTAL	2,753	2,785	2,790

* Estimated

Question. What is the student capacity of individual courses and how close are they to being filled?

Answer. The student capacity of each individual course is 25. Sufficient numbers of students enroll so that classes are rarely canceled. However, job-related duties and funding difficulties by participating organizations does sometimes result in last-minute cancellations.

Question. How many state personnel apply and what percentage of these can be accommodated?
Answer. The Transportation Safety Institute (TSI) has a history of accommodating requests for training funded by State agencies. Funding plays a critical role in both the state applications and TSI's ability to respond. All funded state applicants are accommodated.

Question. How many fewer students will receive training at the FY 1997 budget level?
Answer. We do not know. We currently recover 50% of costs from States and local governments for their training and 100% of costs for industry training. RSPA is developing and encouraging States to make greater use of stand-alone training materials and mass communications technology to reach a much wider audience at a lower cost. This is especially intended for those smaller jurisdictions that cannot afford formal classroom training for their officials. Eight training modules are currently available on CD-ROM and four additional modules will be completed by the end of FY 1997. We are exploring the use of a new long distance learning facility to provide cost-effective training.

Question. How will the proposed reduction in training funds affect the "Train the Trainer" initiative?
Answer. TSI initiated the "Train-the-Trainer" program to increase RSPA's training outreach and thus, increasing HMR compliance. The program allows many organizations to send their best instructors to TSI for up-to-the-minute instruction in the HMR thereby leveraging the program. RSPA will continue to encourage the development of more creative alternatives for increasing the effectiveness of the program.

Question. Is the proposed reduction in training justified by the availability of other training materials, if so, what kind?
Answer. Yes. RSPA has produced a CD-ROM set of six modules (modestly priced at $25.00) that provide the basic information needed to use the HMR. This training can be used for individual instruction, as well as for group instruction. Additionally, RSPA has a long history of providing at modest cost, a host of training materials (in print, on videos and via seminars). While this meets the needs of many in the Hazmat community, there remains a substantial number of local personnel that need specialized training.

Question. Are these other materials comprehensive enough for Motor Carrier Safety Assistance Program (MCSAP) officers?

Answer. The MCSAP officers who perform motor carrier safety enforcement can be satisfactorily trained using those materials. Specialized training would be needed for the officers who specialize in hazardous materials enforcement. RSPA has entered into a tentative agreement with the Office of Motor Carriers/National Training Center to train State and Federal Officers in specialized areas.

Question. If additional training materials are provided, how do they differ from materials historically provided by OHMS?

Answer. OHMS-developed training materials provide basic training; TSI develops and provides both basic and advanced training materials.

Question. Are the current and anticipated training materials sufficient to reduce the need for direct contact with TSI experts?

Answer. No. Research has demonstrated that classroom instruction is more effective and, for hazardous materials training, necessary to address the more technical subjects.

Question. What portion and types of training can be accomplished through self-instructional training materials and what portion requires direct "hands-on" contact?

Answer. The basics can be learned through self-instruction; but an expert is needed to address the more technical subject matter such as cargo tanks, boxes, cylinders, and radioactive materials. TSI provides this type of instruction in addition to Train- the-Trainer instruction. Approximately 50% of the students receive basic training and the rest receive specialized training.

Question. Did you do any assessment or evaluation of the effect a decrease in the FY 97 request for Hazmat training would have?

Answer. Yes. As a result, we decided to initiate new methods to deliver hazardous materials training including the Train-the-Trainer programs utilizing Associate Staff Instructors. The Associate Staff Instructors are law enforcement officers, former enforcement officers or industry compliance officers whose employers agree to allow us to use the instructors for two to three weeks each year. We pay expenses only; therefore, we are able to train the same number of students for less money. A side benefit is that Associate Staff Instructors are able to use our materials to train within their own organizations at no additional cost to the employers.

Question. Will this decrease in Federal funding be made up by any expected increase in State or local training?

Answer. We do not know with certainty; however, we are aware that more States are imposing fees on the transportation of hazardous materials which, by law, must be used for purposes related to the transportation of hazardous materials, including training, enforcement, and maintenance of a capability for emergency response. The training will be an eligible activity.

Question. Can we be assured that your proposed reduction for Hazmat training will not result in a decrease in the enforcement capabilities of State and local Hazmat officers?

Answer. RSPA can provide assurance that it will continue to make available cost-effective training materials and expertise through Train-the-Trainer programs, in addition to the specialized training provided by the TSI.

Question. How many joint inspections did OHMS regional inspectors conduct last year with State inspectors? (Do not include joint inspections conducted with the IPA hazardous materials specialists).

Answer. In FY 1995, OHMS regional inspectors conducted seven multi-day joint inspections and a one-day explosives investigation with State compliance personnel.

Question. Please discuss the scope, nature, and frequency of assistance that OHMS regional staff provided to State hazmat personnel last year. Please include data on the number of training programs conducted by the regional inspectors for the benefit of State inspectors.

Answer. RSPA does not inspect carriers. Because most State enforcement involves highway carriers, RSPA does not receive many requests for training from the States. We attend every Cooperative Hazardous Materials Enforcement Development (COHMED) program meeting, either making presentations or making staff available, and assure the States that our regional offices will assist them in any request they make. Following establishment of our regional offices, the inspectors contacted or visited most State agencies in their regions.

OHMS headquarters and regional staffs receive phone calls from State and municipal agencies on a regular basis. These calls involve requests for clarification of regulations, for other informational material, and, occasionally, a request that RSPA investigate a matter outside the State's jurisdiction.

Because most State inspectors work in areas other than those of OHMS inspectors, we receive relatively few requests for training.

In FY 1995, OHMS regional staff participated in three training programs involving state compliance personnel and seven training sessions for municipal emergency and hazardous response organizations, ranging from city fire departments to police bomb squads.

Question. What new or additional assistance is planned?

Answer. OHMS regional personnel have already participated in five joint hazardous material inspections with State and/or local compliance personnel in FY 1996 and are involved in planning a sixth.

Question. How many State officials participated in the IPA specialist program during each of the last three years?

Answer.

	1994	1995	1996
Number	6	3	3

Question. How much money was appropriated for this program during each of the last 3 years?

Answer.

	1994	1995	1996
Amount	$60,000	$50,000	-0-

Question. How much is requested for FY 97?

Answer. $40,000

Question. Please discuss the extent of interest that State and local governments have expressed in the Hazardous Materials Specialist program?

Answer. The Hazardous Materials Specialist program has generated widespread interest. In 1995, we processed 19 applications requested by potential candidates; so far, in 1996 we have processed 12 applications. In addition to the backlog of pending applications, we continue to receive a high volume of written and verbal inquiries requesting information about the program.

ENFORCEMENT PROGRAM

Question. Please present data, detailing for the last three years, the number of HAZMAT inspectors and measures of their productivity, such as average number of enforcement cases, warnings, and civil penalties collected. Please evaluate these data on a per inspector or similar normalized basis.

Answer: The following table provides the requested information:

	1993	1994	1995
Cases Initiated	245	262	246
Cases Closed	156	176	189
Penalties Collected	$679,675	$960,600	$1,047,842
Warning Letters	133	134	168
Work Years of Effort	17.0	18.4	18.0
Cases Initiated/ Work-Year	14.4	14.2	13.7
Cases Closed/Work-Year	9.2	9.6	10.5
Penalties/Work-Year	$39,981	$52,207	$58,213
Warning Letters/ Work-Year	7.8	7.3	9.3

Question. Please calculate the average settlement percentage [amount of civil penalties collected for valid claims divided by the amount of civil penalties originally assessed for valid claims] for these HAZMAT cases.

Answer. The following table provides the requested information:

	1993	1994	1995
Penalties Proposed	$885,915	$1,378,215	$1,540,391
Penalties Collected	$679,675	$960,600	$1,047,842
Percentage Collected	77%	70%	68%

Question. As evidenced by OHMS inspections, what is the overall level of compliance with the Federal Hazardous Materials Transportation Regulations? What innovative or new strategies are you using to improve your impact upon compliance?

Answer. RSPA can continue to report that a majority of its inspections have found no violations of the regulations.

As we have explained in previous years, it is difficult to determine a precise rate of compliance (or noncompliance) for any given year. This is due in part to the fact that enforcement actions initiated in a given year may be based on inspections conducted in the previous year. Also, many inspections are initiated on the basis of prior allegations of non-compliance and thus are not an unbiased sample of the regulated community. In the past, in order to come up with a statistic in this area, RSPA simply took the number of enforcement actions (civil penalty cases and warning letters) initiated in a given year and divided that number by the number of inspections conducted in that same year. For example, from 1991 through 1995, RSPA conducted 5,594 inspections, and initiated 1,046 civil penalty cases and issued 616 warning letters based on those inspections. Using the previously mentioned simplistic method, this would equate to a 29.7 percent rate of noncompliance for that five-year period. Users of this data must understand that it is only an estimate.

Question. After RSPA brings an enforcement action against a company, how soon is the agency able to re-audit that company? (Please present data for the last three years.)

Answer. One year after an uncontested Final Order is issued in a RSPA hazardous materials enforcement case, the company is eligible for routine reinspection. We believe that a sufficient period of time must pass following an enforcement action to allow a company to settle back into a routine that reflects its (hopefully improved) day-to-day compliance disposition. In the three-year period, FY 1993-1995, RSPA conducted 172 reinspections of companies previously subject to civil penalty enforcement action, with an average interval between Final Order and inspection of 3.7 years. This average is high because a program initiative begun in 1993 focused on cases going back to 1988. The average reinspection time for cases initiated after 1991, 60% of the total, is 1.7 years.

Question. For each of the last two fiscal years, please specify the average time that was spent in processing enforcement cases by regional staff before these cases were submitted to headquarters, the time spent in reviewing these cases at headquarters, and the time between when these cases were first submitted to the Office of the Chief Counsel (and when they were settled). What are you doing to reduce these backlogs?

Answer. RSPA tracks the amount of processing time between an inspection and issuance of a Notice of Probable Violation (NOPV), since RSPA has nearly total control over this time period. For 1994 enforcement cases, inspectors processed cases in 81 days; headquarters review and referral to the Office of the Chief Counsel (OCC) took 49 days; and OCC took 34 days to issue NOPVs. The total time was 5.4 months. RSPA continued to reduce these processing times for its 1995 enforcement cases. Inspectors processed cases in 50 days; headquarters review and referral to OCC took 36 days; and OCC took 30 days to process NOPVs. The total time was 3.8 months.

Once an NOPV is issued, RSPA has much less control over the timing of actions. From that point case processing is dependent upon how quickly respondent companies provide information, their willingness to participate in conferences and hearings, and pay assessed penalties. For 1994 cases closed to date, the time period between issuance of a NOPV and closing of the case is 9.9 months. For 1995 cases closed to date, that time period is 5.4 months.

In summary, inspection-to-case-closure time to date is 15.3 months for 1994 cases and 9.2 months for 1995 cases. Please note that the 1994 case time of 15.3 months is longer than was reported last year. More 1994 cases have closed since RSPA responded to last year's question, thus increasing the overall time for cases opened. For example, the 9.2-month figure for 1995 will be higher this time next year, when RSPA responds to this question for 1995 and 1996.

RSPA's emphasis on prompt post-inspection processing and early issuance of NOPVs has resulted in a large increase in cases opened. This activity has consumed a great amount of attorney time and resulted in a growing backlog of open cases.

RSPA has taken the following steps to increase efficiency and reduce the backlog: (1) authorized staff attorneys to issue NOPVs, (2) authorized the Assistant Chief Counsel for Hazardous Materials Safety to sign most orders, (3) encouraged compromise agreements to reduce appeals and hearings and increase penalty payments and speed closures, (4) initiated an "amnesty" program to authorize one-time payments of overdue civil penalties without additional penalties, and (5) initiated a mediation program to avoid time-consuming Administrative Law Judge (ALJ) hearings.

The current 1996 numbers for the inspection-to-NOPV period provide a somewhat mixed picture. Thus far for 1996, inspector processing time is 39 days; review and referral time is 46 days; and OCC NOPV processing time is 49 days, for a total time of 4.5 months. This represents an increase of 0.6 months from 1995's improved inspection-to-NOPV time. This increase is due, at least in part, to an increased number of enforcement actions being initiated, adding to the current backlog.

Question. What changes in enforcement philosophy or practice have you made since last year?

Answer. As reported last year, RSPA continues to stress corrective action at every stage of civil penalty case negotiations to assure future compliance with the regulations. The written exit briefing provided following each facility inspection states that corrective action is encouraged and will be considered in proposing penalties. Once a NOPV has been issued, OCC actively seeks evidence of corrective action if not previously provided. If a company pays the penalty directly after receipt of a NOPV and provides no information about corrective action, OCC sends a follow-up letter requesting that information.

OCC is emphasizing the compromise of penalties as a way to speed up the post-NOPV case time. OCC has also set up a pilot program for mediation which it has used and intends to use to avoid costly, non-productive litigation when possible. In an effort to streamline and simplify enforcement of certain violations that do not have a significant safety impact on hazardous materials transportation, and in an effort to relieve some of OCC's case burden, RSPA has initiated a two-year pilot ticketing program.

Question. How do you intend to respond to recent Presidential directives to alter enforcement strategies?

Answer. The Office of Hazardous Materials Enforcement is currently engaged in or is considering the following compliance initiatives:

- OHME incorporated in its enforcement policy the President's waiver of penalty provisions outlined in his April 21, 1995 memorandum.

- RSPA initiated a two-year pilot ticketing program to streamline and simplify enforcement of certain violations which do not have a significant safety impact on hazardous materials transportation.

- OHME is developing guidelines to outline a process allowing persons to voluntarily notify RSPA or come forward with information indicating their noncompliance with regulatory requirements within its purview. This might be accomplished through use of the new 800 number. OHME would make it clear that persons would have a certain period of time to correct the problems without prejudice, but that at some later date OHME would conduct a compliance inspection.

- OHME, in coordination with the Office of Hazardous Materials Initiatives and Training, produced a videotape for cylinder retesters which illustrates what OHME looks for when conducting a retester compliance inspection.

- OHME personnel have participated in each of RSPA's outreach meetings to encourage the regulated community to provide suggestions for improving the Hazardous Materials Safety program.

Question. How have you maintained a strong enforcement presence and how do you periodically remind the regulated industry of the need for vigorous compliance programs?

Answer. The Office of Hazardous Materials Enforcement continues to conduct about 1,200 compliance inspections annually. The dissemination of the penalty guidelines has provided industry with evidence of the gravity we place on serious safety violations. In addition to compliance inspections, the OHME headquarters and regional inspectors are interacting on a regular basis with industry, answering questions, clarifying regulatory issues, and providing handout materials.

OHME personnel, attorneys in the Office of the Chief Counsel, and RSPA executives have made and continue to make presentations to industry about the RSPA hazardous materials enforcement program. RSPA issues penalty summary reports listing all DOT hazardous materials enforcement cases; this information is eagerly sought by industry.

Question. What steps have been taken during the last year to shorten the time period from inspection to case closure? What instructions have been provided to your inspectors and attorneys on this issue? Please provide comparative data for each of the last three fiscal years on the processing time involved in hazardous materials cases. How could additional secretarial assistance expedite these processes?

Answer. The steps taken since 1993, which we have reported previously, were: setting processing standards for reports, case referrals, and Notices of Probable Violation (NOPV); incorporating them into inspector and attorney performance plans; and rating actual performance based on the standards. Steps taken since then have included elimination of some portions of internal case review and encouragement of compromise agreements after cases have been initiated.

For 1993, the total processing time from inspection to issuance of NOPV was 11 months. This period decreased to 5.4 months in 1994, and 3.8 months in 1995. The NOPV-to-case closure time for 1993-1995 is currently 13.0 months, 9.9 months, and 5.4 months, respectively. We use the word "currently" because cases started in these years continue to be closed in later years. Thus, the total inspection-to-closure times for 1993-1995 are 24.0 months, 15.3 months, and 9.2 months respectively. This downward trend reflects the steps taken by OHME and OCC.

Additional secretarial help, either in the form of FTE for each regional office, or additional funding to allow the present contracted support staff to work full-time in each office, would enable the regional inspectors to reduce their clerical and administrative activities, and concentrate more on their primary duties.

Question. The request for Regulation Compliance (page 52) shows a decrease from $386,000 in FY 1996 to $236,000 in FY 1997. Part of this decrease is due to carryover funds being made available from FY 1995 to FY 1996 and from FY 1996 to FY 1997. Please provide a table of the amount of funding in FY 1995, FY 1996, and FY 1997 due to the carryover and the amount due to the new budget authority.

Answer. The following table provides the requested information:

	FY 1995 Actual	FY 1996 Estimate	FY 1997 Estimate
Budget Authority (BA)	$386,000	$386,000	$236,000
Resources Available from FY 1995 BA		$263,000	
Resources Available from FY 1996 BA			$236,000

Total funding for this program reflects a multi-year spend plan to provide regulation compliance testing.

Question. Please break down in detail the $260,000 (page 23) requested for Compliance Support under the Hazardous Materials Inspection and Enforcement. Why is an increase of $80,000 justified at this time?

Answer. The $260,000 requested for FY 1997 to fund Compliance Support in the Inspection and Enforcement Program is broken down as follows:

- For maintenance of the COHMED program sponsored by the Office of Hazardous Materials Initiatives and Training - $100,000. This program provides for the exchange of information among the States, local governments, and industry on compliance and enforcement issues.

- To provide funding to support administrative law judge (ALJ) hearings - $5,000. Each respondent in a civil penalty enforcement case has the right to request a formal hearing before an ALJ.

- To fund the contracted clerical support staff in the OHME regional offices - $115,000. Note that $40,000 of this amount comes from the requested $80,000 increase.

- To fund the Hazardous Materials Specialist Internship program sponsored by the Office of Hazardous Materials Initiatives and Training - $40,000. In this program, candidates from State and local HM transportation enforcement agencies participate in a six-week residency with RSPA. Note that this amount comprises the other half of the requested $80,000 increase.

HMTUSA REGISTRATION AND GRANT PROGRAM

Question. Please provide a detailed breakout of the costs and expenditures for the shipper and carrier registration program.

Answer. The registration program is implemented through four contractual arrangements. Forms and fees are submitted to a lockbox bank, which deposits checks into the Treasury, provides data-entry services, and forwards data files and the submitted paperwork to RSPA at the Volpe National Transportation Systems Center (VNTSC) in Cambridge, Massachusetts. The lockbox bank contract is supplied through the Treasury Department's Financial Management Service (FMS). At this time, all expenses for these services are absorbed by the Treasury Department through its lockbox bank contract. However, RSPA has been advised that expenses not directly related to financial matters will be billed to RSPA in the future. A separate contract provided by FMS allows the collection of fees through credit card payment. The expenses incurred through this service are also absorbed by the Treasury.

VNTSC provides data management services, and operational support, including a 24-hour 800-number service. Because VNTSC is an element of RSPA, the vehicle used to obtain these services is a Multi-Year Project Plan Agreement, which is adjusted annually to reflect the level of effort required. In FY 1996, $600,000 was budgeted for these services.

Additional programming and information request response services, including a full-time help desk available during business hours, are provided through an on-site contract at the headquarters office. In FY 1995, $100,000 was budgeted for these services.

The remaining $50,000 was budgeted for printing and distributing the registration brochure and form, other mailings, and other administrative costs of the program.

Question. What could be done to reduce the administrative costs of the registration fee and program?

Answer. The administrative fee of $50 currently is producing approximately $1.3 million each year. Because only $750,000 was appropriated for administration of this program, the fee could be reduced to $35 and still provide the appropriated amount. The costs themselves could be reduced by limiting some of the services we currently supply, for instance, the 24-hour 800-line service for expedited registrations. All customer-oriented services, however, are heavily used by persons either required to register or who need assistance in understanding the registration requirements. To curtail these services would tend to adversely impact on public's ability to get information on a timely basis .

Question. RSPA requests $750,000 for the Shipper and Carrier Registration System. What would be the effect of reducing the funding to $700,000 (page 33)?

Answer. Reducing the funds would result in a reduction of some of the services, such as the 24-hour 800-line for expedited registrations, currently being supplied to the registrants, which would tend to adversely impact the public's ability to obtain assistance or information on a timely basis.

Question. For each of the modal administrations that enforces the registration requirement, please present data on the number of enforcement actions taken against those that have not registered or paid the required fee, or failed to present the registration number as required.

Answer. The Federal Highway Administration (FHWA) has reported 216 cases opened between June 1993 and September 1995 that included citations for violations of the registration regulations. Additionally, FHWA has issued 95 "Notices of the Requirement to Register," an informal notice developed for use during Roadcheck '93, but used beyond that exercise. FRA has issued 154 of these informal notices and has initiated 3 cases against parties for failure to register. RSPA's Office of Hazardous Materials Enforcement has initiated 32 cases since the beginning of FY 1994 which included violations for failure to register.

Question. What is the scope and nature of cooperation and assistance that you are receiving from the Office of Motor Carriers regarding enforcement of the HAZMAT registration program? Are you satisfied with the extent to which OMC safety specialists are disseminating information on the registration program and its associated fees?

Answer. FHWA's Office of Motor Carriers (OMC) has incorporated the registration regulations into its routine compliance review procedures and has issued at least 216 citations for the failure to register or for related record-keeping requirements. When cases for failure to register are completed, OMC frequently issues a press release to highlight the enforcement actions taken. RSPA supplies copies of the registration brochure to the OMC regional offices for them to distribute. Additionally, RSPA and OMC worked together during Roadcheck '95 to further identify parties failing to register and to obtain more current and accurate compliance information.

Question. How are RSPA, OMC, and FRA publicizing enforcement actions against companies who are required to, but are not paying, the registration fee required under the HMTUSA?

Answer. RSPA provides copies of its civil penalty case orders to five trade press publications. It also publishes an annual Penalty Actions Report that includes all actions taken by RSPA and any of the Department's modal administrations for violations of the hazardous materials regulations. This report is also incorporated into RSPA's biennial report on the transportation of hazardous materials. OMC frequently issues a press release to highlight the enforcement actions taken.

Question. How much do you expect to collect during FY 1996? How much do you expect to collect during FY 1997? What is the basis for this estimate? How could this amount be increased?

Answer. RSPA expects to collect approximately $8.0 million during FY 1996, $6.5 million of which is set aside to finance the Emergency Planning and Training Grant Program. If no changes are made to the universe of persons required to register or to the fee amount, a comparable amount is expected to be collected in FY 1997. This estimate is based on the amount collected during FY 1995. (A modest increase in the number of registrants can be expected from continued enforcement efforts.) The collected amount could be increased by increasing either the number of registrants or the fee.

Question. What is the exact amount of the Personnel Compensation and Benefits (PC&B) and travel costs allocated during FY 1995 for personnel working directly on the Emergency Planning and Training Grant Program under the direction of the grants program manager? What is the amount projected for FY 1996? FY 1997?

Answer. In FY 1995 the expenditure for PC&B for those personnel working directly on the Grants Program was $250,471. Estimated PC&B expenditures for FY 1996 are $257,985 and for FY 1997, $265,724.

Question. What is the amount of other PC&B costs and travel costs funded from the HMTUSA grant account?

Answer. Other PC&B costs funded from the HMTUSA grant account were $127,000 in FY 1994 and $128,000 in FY 1995. No other travel costs were funded.

Question. How much is proposed to be spent on the hazardous materials information exchange system in either the OHMS budget or the emergency grant budget? Compare this amount with what you expect to spend during FY 95 and planned for FY 96.

Answer. RSPA is proposing to spent $80,000 on the Hazardous Materials Information Exchange (HMIX) system in FY 1996, the same amount that was spent in FY 1995.

Question. Are the benefits from this program worth all of its costs? How did you reach this conclusion?

Answer. Yes. The HMIX, a computerized interactive bulletin board and national clearing house of information, provides a broad range of topics and current information for all segments of the hazardous materials community (industry, State and local government, enforcement and emergency response). Customers can access HMIX via Internet, RSPA's Homepage on Worldwide Web, and a Fedworld gateway, to receive immediate online information and technical assistance. New topics are constantly added in response to customer requests, emerging needs and rule changes.

RSPA places downloadable files on the HMIX to quickly disseminate on the date of issue: notices (Safety Advisory Notices, Federal Register notices), reports (The Secretary's Biennial Report to Congress, Penalty Actions), forms (Registration, Incident Report), rules (proposed, final, exemptions), and other DOT publications.

Reference materials, training resources and schedules (HazMat conferences, seminars, outreach meetings) provide the customer with multiple avenues for complying with the HMR training requirements, thereby, promoting and enhancing the safe transportation of hazardous materials.

The safety impact of immediately receiving and being able to download current hazardous Materials information, technical assistance and Federal Register notices far outweighs the Government's cost of the program. Over 37,400 persons have used the system at least once, and the system is used over 1,400 times per month. The elimination of reproduction and distribution of notices and regulatory amendments alone saves approximately $60,000 annually. To provide this information by any other medium would not only be less timely, it would be more costly.

REGULATORY ACCOMPLISHMENTS AND ISSUES

Question. Please list all pending dockets and rulemakings before the Office of Hazardous Materials Safety. Please specify the date of origin of these regulatory dockets and their expected completion dates.

Answer. A listing of pending rulemaking actions for calendar year 1996, follows:

RULEMAKING PROJECT	SUMMARY	CURRENT STATUS
Miscellaneous Amendments (HM-166Y)	To make miscellaneous revisions to the HMR that are not significant or controversial.	Initiated: 5/93 NPRM estimated: 1/97

RULEMAKING PROJECT	SUMMARY	CURRENT STATUS
Hazardous Materials In Intrastate Commerce (HM-200)	Proposes to extend the applicability of the HMR to the transportation of Hazardous Materials in wholly intrastate commerce.	ANPRM published: 1987 Delayed awaiting HMTUSA 1/90 NPRM published: 7/9/93 SNPRM published: 3/20/96 Extension of Comment Period Published: 5/17/96 Final rule anticipated: 2/97
Detection of Tank Car Defects (HM-201)	Proposes to require railroad tank car owners and repair facilities to inspect tank car tanks for cracks after repairs.	ANPRM published: 12/87 NPRM published: 9/16/93 Final rule combined with HM-175A
Tank Car Head and Shield and Thermal Protection (HM-175A)	Proposes to require head shields and thermal protection on tank cars for inhalation toxic materials.	ANPRM published: 5/15/90 ANPRM published: 8/22/90 NPRM published: 10/8/93 Public meeting: 1/6/94 Final rule published: 9/21/95 Response to Petitions anticipated: 6/96

RULEMAKING PROJECT	SUMMARY	CURRENT STATUS
Improving Hazardous Materials Identification Systems (HM-206)	To determine methods of improving the current system of placarding vehicles transporting hazardous materials and improving other identification systems.	HMTUSA: 11/90 ANPRM published: 6/9/92 NPRM published: 8/14/95 Public hearing: 10/18/94 Final rule anticipated: 9/96
Safeguarding Food from Contamination During Transportation (FS-1)	Requests comments concerning options relative to regulations to ensure that food and other consumer products are not made unsafe as a result of certain transportation practices.	SFTA: 11/90 ANPRM published: 2/20/91 NPRM published: 5/21/93 Further action undetermined.
Oil: Spill Containment and Response Plans (PC-1/HM-214)	Implements requirements of the Federal Water Pollution Control Act of 1990. Amends the HMR to implement minimum standards for the safe transportation of oil not previously regulated and require the preparation of response plans for preventing and responding to the discharge of oil.	Interim final rule published: 2/5/93. Extension of comment period and announcement of public hearings published: 4/20/93. Public hearing: 5/13/93. Revised Interim Final Rule published: 6/16/93. Requirements became effective 10/1/93. Final rule: anticipated 6/96

RULEMAKING PROJECT	SUMMARY	CURRENT STATUS
Tank Cars and Cargo Tank Motor Vehicles: Attendance Requirements (HM-212)	To allow the use of signaling systems (sensors, alarms, electronic surveillance equipment) to satisfy the attendance requirements unloading tanks cars and for loading cargo tank motor vehicles.	Initiated: 2/92 NPRM published: 9/14/92 Final rule anticipated: 10/96
Incorporation of Recent UN Recommendations (HM-215B)	Revises the HMR by incorporating changes based on the most recent changes to the UN Recommendations, ICAO, and IMO requirements.	Initiated: 11/95 NPRM anticipated: 9/96
Specification 3AL Aluminum Cylinders (HM-176A)	To revise § 173.34 and Spec. 3AL to correct a specification deficiency related to an aluminum alloy.	Initiated: 7/87 NPRM anticipated: 8/96
Labeling Requirements for Poisonous Materials, PG III (HM-217)	To solicit comments on revising labeling requirements for Div. 6.1, PG III materials consistent with International requirements.	Initiated: 6/93 ANPRM published: 11/8/93 NPRM anticipated: 10/96
Quantity Limitations on Aircraft (HM-192)	To review utility of quantity limitations and provisions for cargo compartments on aircraft.	ANPRM published: 4/6/84 Public hearing: 5/30/85 Future action undetermined.

RULEMAKING PROJECT	SUMMARY	CURRENT STATUS
Motor Carrier Safety Permits (HM-218)	To prohibit shippers from offering to motor carriers certain hazardous materials for which the motor carrier must have a safety permit.	Initiated: 5/93 Companion rule to FHWA/OMC rulemaking on safety permits. OMC rulemaking currently on hold pending outcome of demonstration project.
Shipping Paper Retention Requirements (HM-207B)	To implement self-executing requirement of HMTA, Sec. 115, that shippers and carriers retain copies of shipping papers for 1 year after termination of transportation.	HMTAA '94 enacted: 8/29/94 Project initiated: 9/26/94 NPRM anticipated: 12/96
Consolidation of Specifications for High-Pressure Cylinders (HM-220)	To revise the requirements for reinspection, retesting, and repairing cylinders and consolidate seamless cylinder specifications.	Initiated: 1/94 Outreach meeting: 2/18/95 NPRM anticipated: 10/96
Performance-Oriented Packaging Standards; Final Transition Provisions (HM-181H)	To make final modifications to the HMR based on input from regulated entities to make final clarifications and modifications to the requirements adopted under HM-181.	Project initiated: 12/95 NPRM anticipated: 9/96

RULEMAKING PROJECT	SUMMARY	CURRENT STATUS
Hazardous Materials Regulations: Editorial Corrections (HM-189M)	Yearly update making non-significant corrections of typos, spellings, etc. to the HMR.	Project initiated: 1/96 Final Rule anticipated: 9/96
Filling of Propane Cylinders (HM-220C)	Responds to petitions for rulemaking to allow propane cylinders to be filled by volume rather than by weight.	Project initiated: 4/96 ANPRM anticipated: 9/96
Regulatory Reinvention (HM-222)	Responds to the President's Regulatory Reinvention Initiative to review all regulations and eliminate, revise, and clarify requirements.	Project initiated: 3/1/95 Notice published: 4/4/95 12 Public outreach meetings held: Comment period closed: 5/31/95 Next action to be determined.
Hazardous Materials Program Issues -- Jurisdiction (HM-223)	To resolve regulatory jurisdictional issues regarding applicability of the HMR.	Project initiated: 1/96 ANPRM anticipated: 7/96

Question. What were your major regulatory accomplishments during FY 1995 and thus far during FY 1996?

Answer. The following is a listing of final rules or other final actions issued for FY 1995 through June, 1996.

HAZARDOUS MATERIALS RULEMAKING ACTIONS
FINAL RULES FY 1995 THROUGH JUNE 1996

HM DOCKET	TITLE	ACTION	DATE
HM-145K	Hazardous Substances	Final Rule	8/2/95
HM-169A	Compatibility with IAEA for Radioactive Materials	Final Rule Response to Petitions	9/28/95 5/8/96
HM-175A/201	Crashworthiness Protection Requirements for Tank Car Tanks	Final Rule	9/21/95
HM-181E	Intermediate Bulk Containers	Final Rule Response to Petitions	7/26/94 8/4/95
HM-181G	Infectious Substances	Final Rule	9/20/95
HM-189L	Editorial Revisions and Corrections	Final Rule	9/21/95
HM-207C	Exemptions, Approvals, Registration and Reports; Miscellaneous Amendments	Final Rule	5/9/96
HM-207D	Penalty Action Guidelines	Final Rule	3/6/95
HM-207E	Enforcement -- Related Documents, Ticketing	Final Rule	2/26/96
HM-208B	Registration and Fee Assessment Program	Final Rule	5/23/95
HM-215A	Incorporation of Latest UN Recommendations	Final Rule Response to Petitions Response to Additional Petitions	12/29/94 5/18/95 11/13/95

HM DOCKET	TITLE	ACTION	DATE
HM-216	Miscellaneous Amendments; Rail	Final Rule	6/5/96
HM-219	Approval of Multi-Unit Tank Car Tanks	Termination of Rulemaking Action	5/8/95
HM-220A	Periodic Inspection and Testing of Cylinders	Final Rule	5/28/96
HM-220B	Restructuring of Cylinder Specifications	Final Rule	5/23/96
HM-221	Alternate Standards for Open-Head Fiber Drum Packaging	Termination of Rulemaking Action	9/29/95
HM-221A	Extension of Authority for Continued Use of Open-Head Fiber Drum Packgings	Final Rule	2/29/96
HM-222	Improving the Hazardous Materials Safety Program	Notice	4/4/95
HM-222A	Elimination of Unnecessary, Duplicative Regulations	Final Rule	4/29/96
HM-222B	Revision of Hazardous Materials Regulations: Regulatory Review	Final Rule	5/30/96
HM-224	Temporary Prohibition of Oxygen Generators in Air Commerce	Emergency Final Rule	5/24/96

Question. What are the key challenges facing you in FY 1997?

Answer. RSPA anticipates that its key regulatory challenges during the next year will involve completion of several current rulemakings. RSPA anticipates that several rulemakings will be completed by the end of FY 1996 or during FY 1997. These rulemaking actions include issuing final rules on Dockets:

HM-200 - Intrastate Transportation of Hazardous Materials;
HM-206 - Hazardous Materials Identification Systems;
HM-207B - Shipping Paper Retention Requirements;
HM-215B - Harmonization with International Requirements for Hazardous Materials Transportation; and
HM-220 - Consolidation and Revision of the Specification Requirements for Cylinders.

RSPA also plans to continue the efforts initiated as a result of the President's Regulatory Reinvention Initiative to simplify, clarify, and reduce regulatory burdens. One of these efforts involves reducing the size of the HMR so that it can be published in one volume rather than two.

RESEARCH AND DEVELOPMENT

Question. What technical advances have resulted from research sponsored during the last three years by the OHMS?

Answer. Most of the OHMS-sponsored research is focused on the development of national and international standards, assessment of issues related to the issuance of rulemakings and exemptions, the characterization of material hazards and assessment of risk, and the development of information on hazardous material transportation. Research results in the technical basis to develop, assess, guide and support program activities. For example, in the past several years we have gained a better understanding of:

- The factors influencing the choice of mode and route by shippers and carriers of spent nuclear fuel.

- The flows of selected hazardous materials by highway.

- The completeness of the information obtained through Hazardous Materials Information System release reports.

In addition, there are research projects which have resulted in technical advances. For example, work performed to support development of Initial Isolation and Protective Action distances used in the 1996 North

American Emergency Response Guidebook resulted in technical advances in techniques for dispersion modeling of toxic vapor plumes from hazardous material spills. The work introduced the use of probabilistic application of atmospheric data and advanced a technique for use of commonly available toxicological exposure guidelines where specific emergency exposure guidelines did not exist. This work demonstrated that spills at night could result in much larger protective action zones than those produced under typical day conditions. Work in support of the 1996 North American Emergency Response Guidebook further advanced and refined this work yielding a list of materials that can produce large toxic vapor plumes when spilled into water.

Question. What are the critical research activities that are being pursued by OHMS and how do these relate to open rulemaking?

Answer.

- Nondestructive Requalification Testing for High Strength Steel and Aluminum Cylinders" - High Pressure Cylinder Consolidation Rulemaking.
- "Design, Testing and Requalification Standards for Composite Cylinders" - potential rulemaking on composite cylinder standards.
- "Exploration of the Global Positioning System and Related Technologies to Enhance the Safe Transportation of Hazardous Materials" - potential rulemaking.
- "Identification of Factors for Selecting Modes and Routes For Shipping High-Level Radioactive Waste and Spent Nuclear Fuel" - Report to Congress.
- "Support for the U.S. Department of Transportation Response in the New York City Radioactive Materials Routing Case" - critical issue.
- "Guideline For Conducting Surveys On The Highway Transportation Patterns of Hazardous Materials" - critical issue.
- "Evaluation of the Effects of Volumetric Leak Testing of Special Form Sealed Radioactive Sources" - potential rulemaking.
- "Evaluation of the Current Packaging and Methodology Used to Transport Molybdenum-99" - potential rulemaking.

- "Evaluation of the Transportation Factors That Lead to Radiation Doses Received by Hazardous Material Workers and the General Public" - potential rulemaking.
- "Development of Improved Test Methods and Criteria for Ammonium Nitrate Fertilizers" - potential rulemaking.
- "Evaluation of Small Explosive Devices" - potential rulemaking to deregulate certain small explosive devices.
- "Hazards Assessment of Lithium-Ion Batteries" - potential rulemaking.
- "Feasibility Determination for a Regulatory System Based on Risk Management" - critical issue and potential rulemaking.
- "National Assessment of Transportation Risk Posed by Poison Inhalation Hazard Materials, Explosives, Flammable Liquids and Gases" - critical issue and potential rulemaking.
- "A Lifetime Assessment for Composite Cylinders" - potential rulemaking.
- "Fiber Drum Packaging for Transporting Hazardous Materials" - Congressionally mandated study and rulemaking.
- "Technical Support for the National Advisory Committee For Developing Acute Exposure Guideline Levels (Aegls) for Selected Chemicals" - critical toxicological measures for emergency response guidance.
- "Development of Basis and Draft Guidance For Certification of Cylinders Containing Nonfissile and Fissile Excepted Uranium Hexafluoride" - potential rulemaking.
- "Guidance For Implementing Revised Transportation Regulations For Low Specific Activity Materials and Surface Contaminated Objects" - rulemaking implementation and compliance.
- "Development Of Regulatory Guidance On Transportation Of Very Large Contaminated Equipment And Components" - rulemaking implementation and compliance.

- "Impact Resistance Of Specification MC-330 and 331 Cargo Tank Heads In Accidents" - in response to accident experience, a National Transportation Safety Board (NTSB) Recommendation and a potential rulemaking need.
- "Analysis Of Risks Associated With Transportation Of Hazardous Materials In Aircraft Cargo Compartments" - in response to accident experience, NTSB recommendation and potential rulemaking need.
- "Evaluation of Safety Implications in the use of Intermodal Containers in the Transportation of Food, Hazardous Materials, and Hazardous Waste" - critical issue.
- "Truck Transport of Hazardous Chemicals: Dodecene-1" - support of potential rulemaking.
- "Truck Transport of Hazardous Chemicals: 1-Butanol" - support of potential rulemaking.

Question. What have been the major technical reports that have resulted from research sponsored during the last two years by the OHMS?

Answer. The major technical reports that resulted from research sponsored during the last two years are:

- "Development of a proposed test criteria for evaluation of the functional integrity of portable, pressurized-gas cylinders" - Oregon Graduate Institute of Science and Technology.
- "Methodology Used in Preparing the Table of Initial Isolation and Protective Action Distances for the Emergency Response Guidebook" - Argonne National Laboratory and University of Illinois at Urbana-Champaign.
- "Statistical Determination of Downwind Concentration Decay for the 1993 Emergency Response Guidebook" - Argonne National Laboratory and University of Illinois at Urbana-Champaign.
- "Draft Report on Identification of Factors for Selecting Modes and Routes for Shipping High-Level Radioactive Waste and Spent Nuclear Fuel".
- "Guidance for Conducting Hazardous Materials Flow Surveys".
- "Exploration of the Global Positioning System and Related Technologies to Enhance the Safe Transportation of Hazardous Materials".

- o "Technical Documentation To Support 'List Of Dangerous Water-Reactive Materials' 1996 North American Emergency Response Guidebook," Draft.
- o "Truck Transport of Hazardous Chemicals: Dodecene-1" Final.
- o "Truck Transport of Hazardous Chemicals: 1-Butanol" Final.
- o "Hazardous Materials Transportation Training Modules: Compliance and Enforcement" Final.

Question. Which of these reports were entered into the National Technical Information Service? (Indicate NTIS numbers)

Answer. The following reports have been or are soon to be entered into the National Technical Information Service.

- o "Methodology Used in Preparing the Table of Initial Isolation and Protective Action Distances for the Emergency Response Guidebook" - Argonne National Laboratory and University of Illinois at Urbana-Champaign UILU-95-4006.
- o "Statistical Determination of Downwind Concentration Decay for the 1993 Emergency Response Guidebook" - Argonne National Laboratory and University of Illinois at Urbana-Champaign UILU-95-4007.
- o "Guidance for Conducting Hazardous Materials Flow Surveys" DOT-VNTSC-RSPA-94-2.
- o "Technical Documentation In Support Of The 1996 North American Emergency Response Guidebook," Draft - will be sent to NTIS shortly.
- o "Technical Documentation To Support "List Of Dangerous Water-Reactive Materials" 1996 North American Emergency Response Guidebook," Draft - will be sent to NTIS shortly.
- o "Exploration of the Global Positioning System and Related Technologies to Enhance the Safe Transportation of Hazardous Materials" Draft Final, will be sent to NTIS shortly.
- o "Pilot Project in HAZMAT Transportation, Phase 1 Final Report," Draft Final, will be sent to NTIS shortly.
- o "Truck Transport of Hazardous Chemicals: Dodecene-1" DOT-VNTSC-RSPA-96-2.

- "Truck Transport of Hazardous Chemicals: 1-Butanol" DOT-VNTSC-RSPA-95-4.

- "Hazardous Materials Transportation Training Modules: Compliance and Enforcement" No NTIS number because this was produced on CD-ROM.

Question. Are you ensuring that all of the final research reports that the OHMS sponsors are entered into the National Technical Information Service? If not, Why?

Answer. Yes, the Hazardous Materials Safety Program is entering final research reports into the National Technical Information Service (NTIS). In recent contracts and agreements, we have required that final reports be entered into the NTIS.

Question. Please explain and justify the decrease in funding (page 45) for research and development from $699,000 in FY 1996 to $464,000 in FY 1997.

Answer. Because hazardous materials transportation is regulated by a uniform, effective and efficient system of regulations and its safety record is excellent, we are reducing hazardous materials research and development activities to a level limited to only the most critical safety needs.

Question. Please describe how each component of your R&D request relates to pending or future rulemakings.

Answer. OHMS' Research and Development (R&D) Program provides the technical and analytical foundation necessary to support the OHMS. The R&D Program is composed of three activity areas: Information Systems, Research and Analysis, and Regulations Compliance that support the entire OHMS. The information, technical and analytical analyses, and data produced by the R&D Program supports a broad range of activities, for example: rulemaking, exemptions, national and international standards development, information dissemination, training, emergency response guidance, compliance, and the development of program strategies and their implementation.

The three activity areas of the R&D Program support pending and future rulemaking in the following ways:

1) The Information Systems activity area directly supports studies, software development, and ongoing maintenance to facilitate the analysis and use, by Federal, state, and public users, of information collected in the Hazardous Materials Information System (HMIS). OHMS uses and analyzes data and information extracted from the HMIS to develop regulations; issue exemptions, approvals, and interpretations;

oversee radioactive material routing; and promote compliance with safety regulations. Incident data from the HMIS is critical to risk and benefit/cost analyses by Federal, state and public analysts to evaluate rulemaking proposals or comments.

2) The Research Analysis activity area directly supports rulemaking and is used to provide the analyses and studies to assess the need for new regulations and effectiveness and need for current regulations as well as studies mandated by Congress. The knowledge gained is essential to understand the risks associated with hazardous materials transportation and to develop safety regulations that minimize the risk of hazardous materials transportation and the burden on industry, allow maximum operational flexibility, and enhance international competitiveness.

3) The Regulations Compliance (Testing) activity area does not directly support rulemaking activities, but provides for compliance testing of packagings manufactured for transporting hazardous materials. Packaging performance is critical to the safe transportation of hazardous materials. This work does provide an assessment of the level of compliance with packaging specifications and performance standards. This work also identifies sections of packaging specifications and performance where revisions could improve compliance.

OTHER OHMS QUESTIONS

Question. How much money did OHMS allocate for Operation Respond in FY 1995? How much is planned for FY 1996 and FY 1997?

Answer. OHMS provided $140,000 to Operation Respond in FY 1995. We plan to allocate $100,000 in FY 1996, and significantly less than $100,000 in FY 1997 as the development phases of this program ends.

Question. What is the OHMS role in this project? Should this project be continued or turned over to the private sector?

Answer. OHMS has been providing financial and technical support to Operation Respond together with the Federal Railroad and Federal Highway Administrations. OHMS supports the improvement of communication and emergency response at the scene of a hazmat transportation incident through the greater application of technology. OHMS has a major role in evaluating the costs and benefits of Operation Respond compared with DOT's current hazard identification and emergency response information requirements. OHMS is also in the process of developing a lessons learned report. The purpose of the report is to help area emergency responders, transportation, public safety, and environmental protection officials understand Operation Respond, a non profit organization, judge its value to them, and assist those who want to implement Operation Respond to improve public sector communication and emergency response. We believe that long term viability rests with the voluntary participation of, and financial support by, carriers, local governments, and communities.

Question. Please prepare a table indicating the amount appropriated and the amount actually spent for the different major categories and subcomponents of the Hazardous Materials Safety budget for each of the last three years. Please explain any deviation or reallocation of funds.

Answer. The following table shows the appropriated & actual amounts obligated for the major categories and subcomponents of the Hazardous Materials Safety budget for each of the last three years.

	FY 1994 ($ 000)		FY 1995 ($ 000)		FY 1996 ($ 000)	
	APPROP.	OBLIG.	APPROP.	OBLIG.	APPROP.	OBLIG.
PAYROLL	$6,506	$6,348*	$6,800	$6,507*	$6,989	$6,985
OPERATING EXPENSES	$ 725	$ 728*	$ 672	$ 737*	$ 612	$ 612
PROGRAM FUNDS						
Information Systems	$ 950	$ 947	$ 950	$ 940	$ 950	$ 950
Research & Analysis	$ 300	$ 300	$ 300	$ 300	$ 256	$ 256
Rulemaking Suppt.	$ 550	$ 550	$ 481	$ 481	$ 365	$ 365
Inspection & Enforcement	$ 220	$ 208	$ 220	$ 220	$ 180	$ 180
Registration	$1,000	$1,000	$1,000	$1,000	$ 750	$ 750
HAZMAT Training	$ 350	$ 350	$ 350	$ 350	$ 350	$ 350
Information Dissemination	$ 170	$ 170	$ 170	$ 170	$ 170	$ 170
Emergency Preparedness	$ 250	$ 250	$ 310	$ 310	$ 370	$ 370
SFTA	$ 75	$ 75	--	—	—	—
Int'l Standards	$ 140	$ 140	$ 140	$ 140	$ 140	$ 140
R & D						
Information Systems	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300
Regulation Compliance	$ 350	$ 95**	$ 386	$623***	$ 386	$ 425***
Research & Analysis	$ 714	$380**	$ 714	$775***	$ 699	$ 628***

* Transferred payroll to purchase equipment and furniture.

** Remaining balance is carried forward.

*** Obligations include carryover funding from prior years.

RESEARCH AND TECHNOLOGY

Question. RSPA has requested $6,091,000 for Research, Technology and Analysis (Page 58). Please identify RSPA's priorities for the use of these funds. Please provide an estimate of the level of funding to be applied to various research areas, including materials research, interoperability, energy efficiency, environmental compatibility, and human factors.

Answer. Here are the priority components of each FY 1997 Research and Technology budget request category. They were selected to support Administration research and development initiatives as established by the National Science and Technology Council, meet legislative and secretarial priorities and missions, maintain existing customer services, and promote promising research opportunities.

Technology Development ($4,691,000)

1. **Research Program Priority-Setting and Coordination ($380,000)** -- to support the deliberations of the three R&D coordinating bodies to which RSPA provides technical support, by providing analytical evaluations, review group membership, and secretariat services.

2. **Surface Transportation R&D Plan ($810,000)** -- to meet ISTEA Section 6009(b)'s requirement that DOT submit a plan to Congress setting directions for DOT's surface transportation R&D programs, and to support implementation of the DOT Strategic Plan through expanded research and coordination in priority areas identified by the plan.

3. **Advanced Materials ($780,000)** -- as required in DOT's Strategic Plan and developed in the recently released report on Materials Research and Technology Initiatives, to assess the advantages and cost savings from advanced materials applied to infrastructure and vehicles.

4. **Transportation System Sustainability, Energy Efficiency, and Environmental Compatibility ($1,000,000)** -- to conduct research to understand the impact alternative transportation technologies and modal mixes might have on energy usage and the environment.

5. **National Transportation System/National Information Infrastructure Interoperability ($1,500,000)** -- following up on Congressional report language on the FY 1996 budget request, undertake a research program to assess to what extent NII activities consider transportation applications and assess the potential of these new capabilities.

6. **Human Factors/Performance ($221,000)** -- to identify specific new areas for human factors research with high payoff for improved safety and vehicle operator efficiency.

Technology Dissemination ($200,000)

1. **Technology Transfer ($100,000) --** to maintain and expand the amount and quality of research information

available to our users, especially through online sources such as the Internet.

2. **Technology Outreach ($100,000)** -- to conduct outreach workshops to share information and seek input from the users of DOT research results.

Technology Application ($1,200,000)

1. **Technology Deployment ($900,000)** -- to support the Secretary's Technology Deployment office, particularly in its role as Executive Secretary of the NSTC Interagency Coordinating Committee on Transportation R&D.

2. **Technology Partnerships ($300,000)** -- to promote cooperative research and utilization activities with other agencies and the private sector.

Question. If multi-modal transportation coordination is a departmental priority, wouldn't this activity be performed better at a more senior level, such as the Secretary/Deputy Secretary level? Why shouldn't this activity be transferred to the OST Director of Technology Deployment?

Answer. As a general organizational principle, the activities of the senior officials in the Office of the Secretary (OST) focus on staff support to the Secretary himself. Operational functions are delegated to the various operating administrations. RSPA activities dealing with coordination of research and technology development go beyond simple staff support functions, and involve detailed review and collaboration with operational programs. In fact, the OST Office of Technology Sharing, predecessor of the current RSPA Office of Research Policy and Technology Transfer, was transferred to RSPA in the late 1980s when the Congress determined that its programs had become too operationally oriented to remain in OST. RSPA possesses the technical staff expertise and research resources to effectively execute these functions.

Question. Both the Coast Guard and FAA have extensive efforts underway in the areas of satellites and radio navigation. In your capacity for coordinating radio navigation efforts, what actions have you undertaken to ensure that these two operating administrations have taken a unified approach to incorporating this technology into their operations?

Answer. Secretary Peña formally transferred oversight responsibilities for radio navigation in the Department to a Radionavigation and Positioning Staff created under the Assistant Secretary for Transportation Policy in May 1994. The Coast Guard, FAA, and RSPA all belong to the Positioning and Navigation (POS/NAV) Executive Committee, and participate actively in its coordination activities and in its supporting working group. The POS/NAV Executive Committee establishes the overall directions for development and application of radio navigation systems in civil transportation applications.

In addition, in March 1996 the President approved a comprehensive national policy on the future management and use of the U.S. Global Positioning System (GPS) and related U.S. government augmentations. We expect that the interagency and intermodal management mechanisms will evolve further as the executive agencies take steps to implement this policy.

Question. DOT has placed substantial emphasis on research and technology (R&T) functions in the last several years, with the Secretary's Director of Technology Deployment serving as his focal point for much of the activity. Please describe the relationship between RSPA and the Director of Technology Deployment. Could all of these responsibilities be placed under one office?

Answer. RSPA has a close, cooperative working relationship with the Secretary's Technology Deployment office. RSPA serves a secretariat function for several of the research and technology coordination bodies that office chairs or is involved in. RSPA also plays a key role providing technical support to the office.

The areas covered by this support span the full range of transportation research and technology. In 1994 RSPA staff developed a taxonomy of transportation technologies that became the basis for the subcommittee structure of the National Science and Technology Council's Coordinating Committee on Transportation R&D, for which the Director of Technology Deployment serves as Executive Secretary. They originally identified five categories of ongoing technical development in transportation:

- Transportation System Assessment
- Behavioral Sciences and Human Performance
- Physical Infrastructure
- Information Infrastructure
- Next Generation Vehicles

Subsequently the Committee chair created two new subcommittees, dealing with aviation and aeronautics and R&D budget issues, to supplement the first five groups. RSPA staff serve as "Executive Agents" for six of the seven subcommittees, and are the key people in making the groups function as their Chairs direct.

The RSPA involvement includes technology assessment and forecasting, integration of program materials received by the Technology Deployment office, and support for the members in developing their budget and policy positions dealing with transportation technology.

RSPA's top management works closely with the Technology Deployment staff to promote formulation of an effective transportation research program. The Administrator is a member of the Department's Research and Technology Steering Committee, which sets the policy directions for DOT's research programs. The Associate Administrator for Research, Technology and Analysis serves as the Executive Secretary of the Department's Research and Technology Coordinating Council, and is a consultant to the Steering Committee. The current arrangement allows separate but closely collaborating staff elements to deal with the various aspects of technology issues separately, and this flexibility would be lost in the combined office.

Question. What is RSPA's role in major interagency initiatives vis-a-vis the other operating administrations and the Director of Technology Deployment and staff?

Answer. RSPA works closely with the Secretary's Technology Deployment office to assure effective interagency research coordination and technology development activities. Activities are focused in two areas:

- RSPA provides technical and analytical support and secretariat services to the NSTC Interagency Coordinating Committee on Transportation R&D to assure development of integrated transportation research initiatives across agency lines.

- RSPA's Volpe Center receives funding from the Technology Deployment office for technical support of these program activities. Work includes preparing preliminary issue papers, formal proposals for technology initiatives, and special studies in key technology areas. The Center also assures integration of DOT R&D with interagency technology and R&D programs. RSPA's Office of Research and Technology frequently serves a technical liaison function between the Volpe staff and headquarters units in connection with this work.

In addition, some multimodally relevant technologies do not lie within the purview of any individual operating administration's development mandates. The lack of such technologies then impedes the multimodal application of other technologies developed by the Department's elements in response to their own modal needs. When this happens, RSPA must develop information on such bridging technologies, and make them available to the other operating administrations and the transportation community at large.

RSPA's technology development activity is limited to specific topics where a Departmental or interagency initiative is ongoing. This validates the need for the technology, and assures its application once developed. This motivates much of this year's request for resources.

Question. What is the "value added" by RSPA to the Department's R&T program?

Answer. The value RSPA adds to the DOT R&D program comes in the following areas:

1) RSPA looks across program and modal lines, to identify technologies which can be applied to more than one mode of transportation. These cross cutting or generic technologies are frequently developed by one or more modes for specific modal applications. RSPA promotes the application of these technologies by other modes, for other purposes. A particularly successful set of transfers occurred with work on human factors in transportation. RSPA support of coordination mechanisms led to close working relationships among human factors research managers in the Department, and will lead to a formal plan for coordinated human factors research in DOT. Both developmental and application savings result when such transfers occur.

2) RSPA has a uniquely multimodal perspective. Much of the intermodal research in the Department focuses on developing "seamless" linkages of conventional transportation modes for near term or current application. RSPA's longer term perspective allows consideration of novel combinations of current and future technology modes to meet future and developing needs.

Overall, RSPA is the DOT element that tries to look at current and future transportation technologies from a new perspective, and help the Department take advantage of the opportunities which it sees.

Question. Has RSPA supplied staff to assist the Director of Technology Deployment? How many staff? For how long?

Answer. RSPA has never reassigned staff to assist the Director of Technology Deployment. Staff in RSPA's Office of Research Policy and Technology

Transfer frequently provide administrative and analytical support to the research coordination bodies he chairs or facilitates in the context of their RSPA duties. They also participate in interagency initiatives coordinated by the Director of Technology Deployment as RSPA representatives.

Question. How much is requested to write and distribute the Annual Surface Transportation R&D plan?

Answer. $810,000 of the funds requested will be used to update the Department's Surface Transportation R&D plan. $100,000 of this funding is devoted to the actual compilation and writing of the plan itself, and $710,000 is intended to make specific improvements in the data backup for, and validation of, the plan:

- o First, DOT intends to increase efforts to involve outside experts from academia, industry, public interest associations, and the professional research community to assure that promising new technological approaches are covered, and confirm the relevance of the research proposed.

- o Second, DOT intends to make an extensive effort to refine the priorities for proposed R&D activities, and to identify partnering opportunities to support their development, within the context of steady declines in Federal R&D resources.

- o Third, having established a number of long-term R&D thrusts in its Surface Transportation R&D Plan, RSPA intends to conduct more detailed planning on specific opportunities relating to these topics. This will include development of program inventories summarizing ongoing research projects in highlighted areas, along with identification of opportunities for collaborative research. In areas where no research is addressing these opportunities, RSPA will proceed with development of work statements or task descriptions for collaborative projects to fill these gaps and thereby address these opportunities for technological, operational, and institutional innovation.

Question. What improvements in this plan have resulted from the Committee's directive last year?

Answer. Based on last year's guidance from the Committee, RSPA completely restructured the Surface Transportation R&D Plan to emphasize intermodal issues in the context of a long term strategic vision for transportation. This Third Edition of the R&D Plan translates the broad commitments of the DOT Strategic Plan into specific targets for technology development. It summarizes the major trends shaping transportation needs and available technologies over the next ten years, and isolates specific technologies or research thrusts for development during that period. These seventeen research thrusts are designed to take a multimodal perspective, so that RSPA can promote better integration and coordination of the Department's new technology development programs. The insights will be used by research program managers throughout the Department in structuring their future research programs and budget funding requests.

Question. Why does it require money to coordinate DOT's R&D programs among the modes? Can't this be done through extensive discussions (See page 68)?

Answer. The vast majority of DOT's R&D program is dedicated to efforts that support the unique missions of the various DOT operating administrations, rather than innovation or improvement in the transportation system as a whole. Their primary focus is on their statutorily-mandated modal objectives, and they typically do not pursue approaches through which the Department could make broader use of the technologies.

The funding for the RSPA Research and Technology Program provides the Department's primary means to regularly examine technical issues and alternatives that cut across the modes. In close coordination with DOT's operating administrations, the White House, and other Federal agencies, RSPA has been working diligently to develop a coordinated, integrated R&D program that takes into consideration the entire transportation enterprise. Without the necessary analytical data on the performance and applicability of emerging technologies, simple discussions of coordination opportunities would be useless.

To elaborate on this, when conducting research on any transportation technology intended for application by a single mode, some findings will be specific only to the mode itself. However, other findings will be applicable to several other modes. The biggest challenge in research coordination is to conduct the generally applicable research on as coordinated a basis as possible.

For example, both FHWA and FAA have pavement research programs. Some general insights on improving pavement durability and reducing costs will apply both to airport runway pavements and highway pavements. However, the loadings and wear characteristics resulting from continuing car and truck use of highways are markedly different from the high impact loadings generated by heavy aircraft landing. It is therefore appropriate for FAA to apply general knowledge from FHWA about pavements, but also essential for it to conduct its own research specifically relevant to airport pavements.

The key challenge in drawing the line between such generic and mode-specific research is developing information on the applicability of new technologies, as well as on the limits of that applicability, to support informed decision-making. It is exactly that kind of information that the RSPA program is intended to generate.

The analytical material is applied quite broadly. RSPA also has the top-level responsibility for promoting effective exchange of research information and for establishing federal research priorities. RSPA provides the only multimodal and intermodal R&D technical staff supporting the Secretary, Deputy Secretary, and Director of Technology Deployment.

Question. Why does it require Federal funds "to promote commercialization of research discoveries made by DOT in the private sector?"

Answer. Although the private sector often invests heavily in products with high potential to contribute to improved transportation (materials, improved computer and communications systems, etc.), industry sometimes does not recognize how these technologies might relate to operation of the nation's transportation system. Application of new technologies and associated operational concepts is also impeded by user uncertainties concerning potential costs and performance characteristics, and by supplier doubts as to potential markets. The breadth of applications and technologies involved, as well as the large number of stakeholders, warrant an active role for the Federal Government to assure the national good by examining, testing and demonstrating innovative uses of advanced technologies with application in transportation.

Question. You have stated that RSPA needs to foster technology transfer. Isn't this already being done throughout the Department?

Answer. The operating administrations each have effective technology transfer efforts targeted at modal specialists. Each of these constituent groups seeks a specific kind of technical information at a specific level of technical detail. Some require written documentation, while some require data systems, or peers with related experience to talk to. Recognizing these differences, RSPA requests funds to promote more effective technology transfer and outreach across the full range of constituents. Particular emphases have been on communicating interpretive data to policy-level officials, and on identifying and sharing information on "cross cutting" technologies which are applicable by a wide variety of groups.

Question. What are the specific accomplishments of the Research and Technology Coordinating Council? What role does RSPA play in this Council? How often does it meet? What were the major accomplishments last year?

Answer. The key accomplishment of the Research and Technology Coordinating Council has been the elimination of duplicative projects from the research agendas of the various DOT operating administrations. Moreover, a coherent research program on human factors emerged from a coordinating group created by the Council's predecessor, and it remains in operation today. In the last year a similar integrated research program on advanced materials and their application has developed.

RSPA's Associate Administrator for Research, Technology, and Analysis serves as Executive Secretary for the Council. Staff in RSPA provide technical support and secretariat services.

The Council now meets approximately monthly. Additional meetings are scheduled to deal with special issues as they arise, or to brief Council members on key developments related to research and technology.

Question. How many RSPA personnel serve as technical or staff support to the R&T Coordinating Council?

Answer. Staff in RSPA's Office of Research Policy and Technology Transfer frequently provide administrative and analytical support to the Research and Technology Coordinating Council, as well as the Research and Technology Steering Committee and the National Science and Technology Council's Coordinating Committee on Transportation R&D. No staffer is dedicated to these functions alone; rather current staff perform needed support tasks in the context of their RSPA duties.

Question. You have stated that RSPA needs to do cross cutting research. What exactly does this mean? What cross cutting research is being conducted now? Please give specific examples of key needs in cross-cutting research which are not being met.

Answer. Cross cutting technologies are those which have broad applicability to a variety of transportation modes: that is, they are not limited to a single mode of transportation. DOT has a broadly-based coordinated program of research on human factors, and its results can be considered cross-cutting. A more recent Departmental initiative, undertaken in response to the Secretary's Strategic

Plan, deals with advanced materials. RSPA has begun a similar effort on the impact and promise of advanced information technologies on transportation. Other cross cutting technologies which need to be more fully addressed include positioning systems, environmental impact assessment, and advanced communications/control system applications. All of these are addressed in this year's budget request.

Question. Please give specific examples of RSPA's successes in intermodal research or in cross cutting research.

Answer. RSPA has worked extensively to promote cross-cutting research and coordinate the Department's surface transportation research programs. As a result, DOT has been able to avoid duplicative projects among the research agendas of the various DOT operating administrations. In addition, research cost savings have resulted from more sophisticated program design, and cross-cutting, multimodal applicability of modal-specific technologies was promoted. This is particularly apparent in two areas:

1. **The Surface Transportation R&D Plan**

The Intermodal Surface Transportation Efficiency Act of 1991 requires DOT to develop an integrated national surface transportation R&D plan that focuses on research needed over the next decade. RSPA's Volpe Center has completed the text of the third edition of this plan, which is now being prepared for mass distribution. RSPA released previous editions of the plan in July 1993 and March 1995.

The Surface Transportation R&D Plan describes the complete R&D programs of the Federal Highway Administration (FHWA), National Highway Traffic Safety Administration(NHTSA), Federal Railroad Administration (FRA), Federal Transit Administration (FTA), Maritime Administration (MARAD), Bureau of Transportation Statistics (BTS), Office of the Secretary (OST), and RSPA, and related programs of the Federal Aviation Administration (FAA) and U.S. Coast Guard (USCG). It has been prepared through extensive interaction with these operating administrations and agencies. The plan includes: (1) details of DOT's surface transportation R&D for the next 3 years; (2) a 10-year projection of strategic long-term programs; and (3) suggested changes in contracting procedures to encourage adoption of advanced technologies.

The third edition of the plan presents DOT's strategic plan for maximizing the effectiveness of its R&D activities over the next 10 years. The plan identifies resource scarcity as a key challenge facing the Department and the nation. As such, cross-cutting research on topics with intermodal applicability is a key component of its strategy. In line with the

Administrator's goals, the plan refocuses DOT's efforts on its key responsibilities as the federal steward of the nation's transportation system. It aligns DOT's long-term R&D priorities with the strategic goals identified in the Department's January 1994 Strategic Plan.

2. **Advanced Materials R&D**

Another example of the effectiveness of RSPA's promotion of crosscutting R&D is its advanced materials initiative. RSPA has assumed the lead role for integrating Department-wide research, development, and technology transfer activities related to advanced materials. RSPA's Volpe Center is providing technical support to this continuing effort.

RSPA initiated the formation of an Advanced Materials subcommittee of DOT's Research and Technology Coordinating Council. The Council includes representatives from RSPA, FAA, FHWA, NHTSA, FRA, FTA, MARAD and USCG.

In November 1995, RSPA issued a final report entitled Materials Research and Technology Initiatives. This report is the first crosscut of DOT's advanced materials R&D. It is intended to provide DOT's customers and prospective research partners with a consolidated report of materials-related research projects.

The report discusses DOT's research efforts in two major areas: (1) advanced materials research for transportation infrastructure applications, such as the use of solid waste materials in highway construction or high-performance concrete for bridge construction; and (2) advanced materials-related research for vehicles and other applications, such as the use of composite materials to construct lighter weight and stronger containers to transport hazardous materials. It describes both ongoing (FY 1994 baseline) and planned (FY 1995-1996) materials-related R&D efforts. The report also discusses cooperative research with other federal agencies, state governments, universities, and the private sector.

RSPA is now evaluating a number of proposals received under this year's Small Business Innovation Research (SBIR) to extend the state of the art on low-cost construction materials with multimodal applicability. We expect award of an exploratory contract around November 1996, and availability of its final report in about a year.

Question. Doesn't the Department's Research and Technology Coordinating Council already promote cross-cutting research? If so, what funds are used?

Answer. As noted previously, RSPA has historically provided technical and administrative backup to the R&T Coordinating Council in all of its functions, including promotion of cross-cutting research activities. The assessments, program reviews, and background papers conducted by and for RSPA are in part conducted to support RSPA's responsibilities with the R&T Council and similar groups.

When research activities to develop cross cutting technologies have previously been conducted, the research has typically been funded by one operating administration to meet its functional needs and mandates. Applicability by or for other modes has been a far lower priority. The requested funds would allow selective development of cross cutting technologies identified within RSPA, as identified through its planning and coordination efforts. RSPA would then promote their application on a truly multimodal basis.

Question. You have stated that RSPA needs to keep appraised of what research others are doing that might relate to transportation. Isn't this already being done through professional meetings, etc.?

Answer. RSPA, both through its headquarters staff and technical specialists at the Volpe Center, has maintained an oversight of transportation technology development as long as both organizations have existed. This has sufficed well to provide general direction to DOT's R&D efforts.

With the activation of interagency groups like the National Science and Technology Council's Coordinating Committee on Transportation R&D and its subcommittees, the scope and detail of research coordination activities has increased substantially. RSPA will therefore have to develop more extensive assessments of the potential of promising technologies.

The RSPA activities associated with advanced materials and physical infrastructure in FY 1995 are a good example of this. RSPA's work identified the range of materials research programs ongoing within the Department, and integrated them into a formal oversight report and materials research plan. Additionally, we plan to conduct more detailed assessments to identify specific technologies which deserve more emphasis because of their potential and broad applicability. Similar planning activities are developing in connection with a variety of cross-cutting technologies and advanced technologies with broad applicability.

These program analyses and technology assessments will enable more carefully targeted, productive research, which will be available and usable to a wider variety of constituents.

Question. You have stated that RSPA needs additional funds to coordinate research. Isn't this a function of the Research and Technology Coordinating Council within the Department and the Director of Technology Deployment?

Answer. RSPA's request for additional funds related to research coordination is to develop needed data and provide needed technical and administrative support for the Department's Research and Technology Coordinating Council, as well as its Research and Technology Steering Committee and the National Science and Technology Council's Coordinating Committee on Transportation R&D.

RSPA and the Secretary's Technology Deployment office work cooperatively to assure the effective functioning of these groups, and effective R&D priority-setting throughout the Federal Government. All the elements mentioned are part of an integrated and effective set of mechanisms for R&D management which are currently functioning.

RSPA focuses in particular detail on issues in seven areas highlighted by the NSTC:

- Transportation System Assessment
- Human-Centered Transportation
- Physical Infrastructure
- Information Infrastructure
- Next Generation Vehicles
- Aviation and Aeronautics
- R&D Budget Issues

The RSPA involvement includes technology assessment and forecasting, integration of program materials received by the Director of Technology Deployment in his role as Council chair, and support for the members in developing their budget and policy positions dealing with transportation technology.

RSPA's senior management works closely with the Director of Technology Deployment to promote formulation of an effective transportation research program. The RSPA Associate Administrator for Research, Technology and Analysis serves as the Executive Secretary of the Research and Technology Coordinating Council, and is a consultant to the Department's Research and Technology Steering Committee. The RSPA Administrator is a key member of the Steering Committee, which provides policy direction for the Council, and the DOT research and technology program as a whole.

Question. Please prepare a table indicating the amount appropriated and the amount actually spent for the different major categories of the Research and Technology budget for each of the last three years. Please explain any deviation or reallocation of funds.

Answer. The requested table follows.

RSPA R&D BUDGETS FOR FY 1994-1996 (Appropriated and Actual Levels)

R&D Program Area	FY 1994 Approp.	FY 1994 Actual	FY 1995 Approp.	FY 1995 Actual	FY 1996 Approp.	FY 1996 Actual
Technology Development:	$450,000	$450,000	$1,061,000	$1,061,000	$1,266,000	$1,266,000
Technology Dissemination:	$50,000	$50,000	$50,000	$50,000	$0	$0
Technology Application:	$0	$0	$0	$0	$600,000	$600,000
TOTAL	$500,000	$500,000	$1,111,000	$1,111,000	$1,866,000	$1,866,000

UNIVERSITY RESEARCH

Question. How do you ensure that only high priority projects are funded at university centers?

Answer. RSPA does not directly manage project selection at the University Transportation Centers (UTCs). RSPA requires UTCs to devise and implement a project selection process that responds to such specified criteria as regional needs, national priorities, modal balance, availability of matching funds, and student and faculty involvement. Each year during the annual site review RSPA evaluates the effectiveness of the Center's project selection process in the previous year and approves any changes to the process for the coming year.

Question. Please bring us up to date on how RSPA has improved the management and oversight of the university centers and research institutes program.

Answer. Since RSPA took over the program in 1992, each University Transportation Center and University Research Institute has been required annually to develop a strategic plan for the following year. This plan is reviewed by DOT staff, discussed with the specific Center and Institute and changed if necessary.

Each Center and Institute also submits an annual report discussing how well their previous year's strategic plan was implemented. This report is also reviewed by DOT and with the particular Center and Institute.

These actions have resulted in a high level of confidence in the effectiveness and value of the University Transportation Centers and University Research Institutes programs.

Question. Has RSPA fully addressed each of concerns raised three years ago by GAO in their report on university research?

Answer. The May 1994 GAO audit report recommended two specific corrective actions and assigned those actions to two offices within the Office of the Secretary (OST). RSPA has fully supported the audit follow-up activities of those OST offices.

Question. How many university programs does DOT have, and what is the annual cost of these programs? Provide the breakdown by agency.

Answer. The DOT participates in the National Science Foundation survey of Federal Support to Universities and Colleges. In the most recent year for which data has been published, fiscal year 1994, the DOT's total obligations to universities and colleges was shown as $61.0 million.

RSPA manages two university programs. The University Transportation Centers program, with an annual cost of up to $13 million, is paid in equal shares by the Federal Transit Administration and the Federal Highway Administration. The University Research Institutes program, with an annual cost of up to $6,250,000, is paid by the Federal Highway Administration.

In early 1996, RSPA commissioned the Volpe Center to conduct a broad inventory of the Department's entire 1995 direct funding to universities, including all types of payments for research, education, technology transfer, facilities, conferences, procurements, and so forth. This study will result in a report, due out in the fall of 1996, addressing the amount of DOT investment in university activities, as a whole and broken down by mode; the type of funding relationships used; the nature of work conducted with DOT funds; and how DOT's university investment compares with other Federal agencies.

Question. Dissemination of university-based research results is important if the work of the many universities is going to be used to advance transportation technology. The Intermodal Surface

Transportation Efficiency Act of 1991 directed the Secretary of Transportation to establish and operate such a clearinghouse. What is the status of this effort?

Answer. A National Clearinghouse for the University Transportation Centers program was established by Pennsylvania State University. This Clearinghouse has been operating for the past four years.

Question. How much have you invested in Penn State's efforts to develop the clearinghouse?

Answer. Pennsylvania State University has received $424,935 from DOT over five years to perform various cooperative activities on behalf of all thirteen University Transportation Centers (UTCs).

These funds allowed Penn State to:

- establish and operate a reference library,
- distribute UTC research reports,
- publish and distribute UTC program newsletters,
- print informational fliers on UTC projects and events,
- produce and distribute biannual reports,
- develop a national UTC mailing list,
- place UTC information on Penn State's World Wide Web server,
- design and exhibit a trade-show booth,
- arrange periodic meetings of UTC directors, and
- coordinate UTC program events.

Question. How much are you planning to spend at Volpe to help develop the clearinghouse?

Answer. The Volpe Center has been contracted to develop only the electronic portion of the UTC Clearinghouse. To date, $186,000 has been spent on this project.

THE VOLPE CENTER

Question. The Volpe National Transportation Systems Center receives no direct appropriation because it is funded entirely by the department's operating administrations through a working capital fund. Most of the funds obligated through the center, are provided to private and university research sectors. For fiscal year 1995, what percent of funds were contracted out? For fiscal years 1996 and 1997, what percent of funds do you plan to contract out?

Answer. For fiscal year 1995, about 74 percent of the Center's obligations were contracted to the private sector and one percent to the university sector. For FY 96-97, the corresponding percentages are estimated at 71 percent and one percent. Most of the work that is contracted out is for software engineering and related skills.

The Center performs much of its work using project teams, in which federal staff obtains support, when appropriate, from external and on-site contractor staff who provide needed additional skills and capabilities on a cost-effective basis. The federal staff always retains full responsibility for management and direction of the work, and for the quality of the final product. The formation of federal/contractor technical teams permits the Center to adapt rapidly to a changing workload.

Question. During fiscal year 1995, how much funding was devoted to in-house research? For fiscal years 1996 and 1997, what percentage of funds do you plan to devote to in-house research?

Answer. The Volpe Center devoted no funds to in-house research (i.e. independent research and development) in FY 1995, and plans none for 1996-97.

Question. What percent of your personnel costs are for contract administration, technical program direction, and in-house research?

Answer. About three percent of personnel costs are contract administration. Center labor hours tied to specific technical project work accounts for 72 percent of personnel costs, of this less than one-fifth involves provision of technical direction to Volpe or contacted activities. There is no in-house research. The remaining 25 percent of personnel costs cover facility operations and all other central administrative and management services.

Question. What have you done to stop "pass throughs" to the Volpe Center?

Answer. Neither the Volpe Center Working Capital Fund nor RSPA work acceptance policy permits the Center to accept funds earmarked by the customer for a specific contractor, commonly known as "pass-throughs." The responsibility for the selection, technical direction, and performance of all Volpe Center contracts (except for the Small Business Innovation Research (SBIR) contracts) rests with the Volpe Center. In FY 1995 less than three percent of Volpe contract obligations were sole-sourced.

In response to the FY95 recommendation by the Inspector General and to the Senate Appropriations

Committee request that the Volpe Center "discontinue accepting projects for which the Center will add little or no value..." all aspects of the work acceptance process were reexamined by management of the Volpe Center and scrutinized carefully by the Administrator. A principal resulting criterion is that all projects must have demonstrable Volpe Center "value added." The policy directive developed in FY95 states "The Volpe Center will add substantial value in contributing to the outcome of each project by applying technical expertise and specialized skills or knowledge. The value added thus becomes visible in the character, quality, or quantity of the product; improved system efficiency and effectiveness; or cost savings." Volpe Center managers and staff consistently follow this policy.

Question. Please break out, in tabular form, obligations by each of the DOT modal administrations to the Volpe Center for each of the last three years. What is the significance of these funding trends?

Answer.

Obligations of DOT Modal Administrations
to the Volpe Center
FY 1993 - FY 1995
(New Obligational Authority in Millions of Dollars)

	FY93	FY94	FY95
FAA	85	83	93
FHWA	16	14	11
USCG	22	13	7
FRA	14	11	12
FTA	8	7	6
NHTSA	5	5	6
RSPA	5	4	5
OTHER DOT	2	3	2
OST	1	1	1
TOTAL	158	141	143

Note: Each amount reflects that customer's participation in DOT's SBIR program, which the Volpe Center manages.

The general downward trend of about 10 percent over 2 years primarily reflects changes in the appropriations and program emphasis of our DOT customers.

Question. What are you doing to build up the in-house expertise of Volpe personnel and their technical capabilities to do more of their own research?

Answer. A number of activities are underway at the Volpe Center to assist employees to maintain and develop further their professional skills and capabilities. Many of the Center's technical staff are active members of scientific and professional organizations in their own fields, such as the American Physical Society (APS), the Institute of Electrical and Electronics Engineers (IEEE) and the Operations Research Society (ORS). Volpe Center members contribute articles to professional journals, serve as officers with the national or local branches, and participate in meetings and symposia.

The Center's staff, who possess a total of 229 advanced degrees, take advantage of transportation-related graduate level courses at the Boston area's world-renowned academic institutions. The Center also offers a series of on-site training sessions aimed at enhancing the staff's overall knowledge of transportation activities and the wider context in which they take place. For example, several one-day transportation issues seminars are offered each year in which experts from industry, government and universities lead discussions on transportation technologies or policy issues.

Having a highly qualified staff of technical and professional experts is the Volpe Center's highest priority since it is the main reason customers come to the Volpe Center.

Question. When was the last time that Volpe conducted customer surveys? What were the results?

In 1995, the John A. Volpe National Transportation Systems Center (Volpe Center) embarked on an ambitious undertaking with our "Customer Satisfaction Monitoring Initiative" (CSMI). The CSMI is a structured, systematic customer feedback process designed to capture customers' perceptions of the services we provide to them. We undertook this initiative to assure our customers' needs are being met to their satisfaction and, where we could, improve upon our products and working relationships.

Volpe Center project managers interviewed **219** of their project manager counterparts. The results of these interviews were summarized and shared during the **62** senior-level interviews by Volpe senior managers with their counterparts. Finally, these results were summarized and shared during the **19** administrator-level interviews conducted primarily by Volpe Center's Director.

Overall Satisfaction - One question asked of all project and senior-level interviewers was, "Overall, how satisfied are you with the Volpe Center?" (using a 0 to 10 scale, where 0 means "extremely dissatisfied" and 10 means "extremely satisfied"). The chart below shows our customers' overall satisfaction ratings.

SATISFACTION RATING	PROJECT-LEVEL INTERVIEWS	SENIOR-LEVEL INTERVIEWS
10	7%	0%
9	22%	23%
8	40%	43%
7	19%	17%
6	7%	7%
5	1%	7%
4	2%	0%
3	2%	3%
2	0%	0%
1	0%	0%
0	0%	0%
TOTAL	100%	100%

Question. How have you strengthened RSPA's and the Volpe Center's role in research and development coordination at DOT?

Answer. Consistent with the national direction established by the President, RSPA has been working to strengthen R&D coordination within DOT and elevate it to a top priority. Leading coordination and implementation of DOT-wide research, development, and technology transfer and sharing activities is a major RSPA priority, and the Volpe Center is integral to providing this leadership. Technological development is now one of the seven strategic goals of the Department's Strategic Plan. The Strategic Plan's emphasis on using and deploying technology has become a catalyst for organizational and cultural change at DOT.

In addition, DOT has created one new internal coordinating committee and revitalized an existing committee to manage and direct technology development and deployment. RSPA provides key technical, analytical, and administrative support to each of these committees. The first, the R&T Steering Committee, is composed of modal administrators and assistant secretaries. The group meets to establish

R&T policies, budget priorities, and strategic plans for the Department. The second committee. the Research and Technology Coordinating Council (RTCC), is composed of the R&D directors of each of the modal administrations, and implements the policies set by the Steering Committee. These committees work to ensure that R&D is receiving a higher priority in DOT; that coordination and cooperation among the operating administrations is improved; and that efforts to steer Federal transportation research are advancing. A particular emphasis of this activity has been on improving the integration of R&D programs by function, including R&D in such areas as human factors, materials and structures, and information and communication technologies.

RSPA's Volpe Center coordinates the Department's participation in the Small Business Innovation Research Program, along with other cross-agency initiatives involving the National Science and Technology Council, the Department's advanced materials research and technology initiative, and the ISTEA-mandated Surface Transportation Research and Development Plan. The RSPA-led University Transportation Research Program also forms a natural component of the Administration's technology initiative in its focus on engineering leadership, private sector partnerships, and advanced technical education.

Question. For the ten biggest Volpe work assignments that were approved by the Administrator or a headquarter-based designee, please list the nature of the work, the date submitted from Volpe to RSPA headquarters for approval, and the date that it was approved.

Answer. Beginning in FY96 the Administrator has delegated project approval authority to the Center Director with the exception of non-federal work (a minor component of the Center's total activity. Consequently no large projects have been submitted to the Administrator for approval. All new work accepted is reported to the Administrator monthly to keep him fully appraised of Center activities.

Following are the ten largest projects, based on FY 1995 actual obligations. All but the last are long-term efforts with comparable levels of activity in FY 1996.

Project	Customer	FY95 Obligations
Enhanced Traffic Management System	FAA	7,028,912
Telecommunications Mgmt. System	FAA	6,583,624
Remote maintenance monitoring Software	FAA	6,516,817
Safety Performance Analysis System	FAA	5,473,038
Advanced Traffic Management System (ATMS)	FAA	4,855,043
Runway Status Lights System	FAA	4,372,634
Aeronautical Information System	FAA	3,343,764
Transition Management	FAA	3,313,125
Configuration management System	USCG	2,979,487
Facility System Engineering Program	FAA	2,976,766

Question. Please prepare a table showing the percent of the Volpe work that has been conducted for non-DOT agencies for each of the last four years.

Answer.

Volpe Center Obligations for Non-DOT Agencies
FY92-FY96

	FY92	FY93	FY94	FY95	FY96*
DOD	33%	25%	24%	12%	11%
Other Non-DOT	3%	7%	10%	15%	16%
Total	36%	32%	34%	27%	27%

*estimated

Question. What are the overhead charges and how have you tried to reduce these?

Answer: The Center's FY96 overhead rates are projected to be 33 percent for project overhead (charged to direct labor) and 7.4 percent for General & Administrative overhead (charged to total obligations.) The $22 million FY96 indirect budget fully absorbed pay raises and other normal cost increases without exceeding the FY95 budget. This equates to a reduction of nearly a million dollars, and compares favorably to the $26 million budget of FY93. Overall, less than 12 percent of the Center's expenses are for indirect activities. Indirect activities are those necessary for the operation of the Center which cannot be readily identified to specific projects. They include management, administrative services, training and operation and maintenance of the Center's facility.

Question. The Volpe Center has developed a Business Plan to help plan and organize for the future. How effective has the Plan been in accomplishing this? Are you developing similar plans for other program activities within RSPA?

Answer. The Volpe Center Business Plan is a highly useful document in assessing the Center's major market areas as well as highlighting those areas in which additional projects are possible and desirable.

The Center's five major market areas, as described in the Business Plan, are as follows:

A. Stewardship of the Transportation Enterprise

1. Promotion of Safe and Secure and Sustainable Transportation
2. Strategic Transportation Investment and Resource Allocation
3. Advancement of Transportation Technology

B. Provision and Use of Transportation Services

4. Enhancement of Federally-Provided Transportation Services
5. More Effective Federal Transportation Use and Operations

Among future growth areas in which increased Volpe Center activity is anticipated are: support for the development of safety, energy and environmental initiatives; transportation security systems; operational traffic management systems; environmental compliance and remediation; transportation of hazardous materials; and physical and operational infrastructure renewal.

Other RSPA organizations are also involved in their own strategic planning processes. Because the Center is a working capital fund organization which receives no funding directly from the Federal budget, its business planning process is by necessity different from that of the other RSPA organizations.

OFFICE OF EMERGENCY TRANSPORTATION

Question. How much of your budget request supports maintenance of the new Crisis Management Center (CMC)?

Answer. For FY 1997, $45,000 is requested for maintenance support for the electronic systems in the Crisis Management Center (CMC). The funds will also be used for specialized crisis management software and associated hardware for at least one region with a high risk of disasters to provide a seamless flow of information from a disaster site to the CMC.

Question. How are you able to staff the CMC during disasters? Do you bring in outside support to help? From where and how many staff are used?

Answer. The seven professional and administrative staff members of the Office of Emergency Transportation form the core of the CMC staffing. Additional support is provided by the DOT Crisis Management Augmentation Cadre. This cadre consists of about 70 people from throughout DOT, who provide the CMC with specialized expertise for their respective transportation area during a crisis. Cadre members analyze the effects of the crisis on their mode of transportation and formulate appropriate response actions. OET will conduct several training sessions for the cadre throughout the year to provide these individuals with baseline knowledge of their functions and the many systems available in the CMC. In addition, we periodically review staffing rosters to ensure that full complement of cadre members is maintained.

Question. You discuss an increase in the number and magnitude of natural disasters in the last several years, but your budget has steadily decreased to a level of $200,000 this year. How can you react to more disasters with fewer resources?

Answer. The funding for FY 1997 was reduced by $50,000 to account for the completion of the CMC. This basically means that all major procurements for the startup are complete and the CMC is operational, and so a slight reduction in the CMC program can be accommodated. However, funding will be required for the CMC in FY 1997 and future years for maintenance and upgrades that will be identified as we gain experience through activation of the center in disasters, as well as for training at headquarters and the regions. Likewise, we will need funding to keep abreast of new communications and computer technology, etc.

Question. How useful are the Regional Transportation Coordinators trained by your Office? Are they able to provide full time and attention to the disaster in lieu of their regular positions?

Answer. The Regional Emergency Transportation Coordinators (RETCOs) have been a vital part of the success of the crisis management program since the

Department was created. To be effective in assisting victims, the transportation response to a disaster must be well organized across modal lines. The RETCOs are senior regional officials who are charged by the Secretary with managing the Department's preparations for disaster response and, when disaster strikes, leading this response.

Staff support is provided by a Regional Emergency Transportation Representative (RETREP) in each region. These individuals serve as the Department's eyes and ears in the regions before, during and after a disaster. Prior to disasters, they carry out their emergency preparedness function by working with the other Federal, State and local officials and private industry to prepare for crisis response efforts. They monitor the situation in their respective regions and advise OET of potential or actual transportation disruptions. During disasters, they serve as the Secretary's representative to manage catastrophic transportation disruptions in conjunction with the Federal Emergency Management Agency (FEMA) and in support of the States. After a disaster, they assess the field response to identify corrective actions to improve performance in future disasters.

The growing number of disasters and increasing intensity of the Federal response have expanded the demands on the RETCOs, both in time and funding, and reinforced the importance of their role in effective disaster planning and response. The RETCOs are generally able to put aside regular duties to devote full time to emergency coordination in a major crisis. It is critical in order for them to effectively plan for and manage crisis response efforts in their region and to participate in planning and training activities. The RETCOs receive limited funding for training and travel from RSPA, although most program costs, including salary, are absorbed by the RETCOs' parent agencies. In addition, RSPA also provides the RETCO a computer and related software for disaster preparedness and response.

Question. Please prepare a table indicating the amount appropriated and the amount actually spent for the different major categories and subcomponents of the Emergency Transportation budget for each of the last three years. Please explain any deviation or reallocation of funds.

Answer. The following table reflects the appropriated (BA) and actual amounts obligated (Obs) for the major categories and subcomponents of the Emergency transportation budget for each of the last three fiscal years (represents dollars in thousands):

	FY 1994		FY 1995		FY 1996	
	BA	Obs	BA	Obs	BA	Obs*
Payroll	568	549	581	531	610	610
Operating Expenses	109	108	105	105	96	96
Program:						
-Operational Readiness	80	80	80	80	--	--
-Transportation Resource Mgmt.	--	--	50	50	--	--
-Crisis Mgmt.	85	85	446	435	250	250
R&D	0	0	50	6**	50	94
Total	842	822	1,312	1,207	1,006	1,050

* Reflects estimates through end of the FY.

** FY 1995 3-year funds of approximately $44,000 were obligated in FY 1996.

EMERGENCY PREPAREDNESS GRANTS

Question. RSPA requests $300,000 (page 106) for printing and distributing the Emergency Response Guidebook. This guidebook is to be printed in English and Spanish and distributed in the United States and Mexico. Why are emergency response grant funds to be used for documents distributed in Mexico?

Answer. The budget justification should have said that the United States would pay for printing and distributing the English and Spanish versions of the Emergency Response Guidebook in the United States and its territories and that Mexico would pay for printing and distributing the Spanish version within Mexico.

Question. Can or should the Government of Mexico pay a portion of these expenses?

Answer. The Government of Mexico will pay for these expenses.

Question. What are the measures of success for this program? How do you know whether the grant funds are used effectively by the States?

Answer. Each grantee is required to complete a progress report at the end of every budget period stating accomplishments during that period. These accomplishments are then aggregated for the entire country. In the second budget period grantees accomplished over 300 commodity flow studies, created or updated over 1200 emergency response plans, assisted over 2223 Local Emergency Planning Committees and conducted over 800 exercises. Also 132,000 hazardous materials emergency responders were trained using HMEP grant funds. In a recent derailment and fire in Weuyauwega, WI, volunteer fire department responders, interviewed on local radio, praised the grants program for giving them the opportunity to receive operations level hazardous materials response training.

Question. What compliance rates were achieved in the 1993-94 registration cycle, estimated for the 1994-95 registration cycle, and projected for the 1995-96 registration cycle for the hazardous materials registration program?

Answer. We believe compliance with the registration requirement is approximately 90 percent. This conclusion is based upon analysis by use of the Truck Inventory and Use Survey (TIUS) (1987), which provides specific data on truck characteristics and other data on characteristics of the hazardous materials industry. Included in TIUS are data on the number of trucks involved in hazardous materials transport, and the number of trucks and/or trailers owned and/or operated at the same home base. We were able to extrapolate from these data the approximate number of companies, not under lease, using one or more placarded trucks weighing 26,000 pounds or more. Airlines and railroads are well known, and we are confident that they are registered. Compliance enforcement with the registration requirements was a key element of ROADCHECK-93 and ROADCHECK-95, nationwide inspection efforts sponsored by the Federal Highway Administration. Of 2,300 placarded trucks that were checked for proof of registration during the 1993 inspection, 88 percent were registered and had proof on board. Of the 12 percent that did not have proof on board, 80 percent were already registered. Thus, there was approximately 98 percent compliance with the registration requirement. Of the 1,220 placarded trucks that were checked during the 1995 inspection, 91 percent were registered and had proof on board. Of the nine percent that did not have proof on board, 60 percent were already registered. Therefore, there was approximately 96 percent compliance with the registration requirement. Similarly, during FY 1995 the Office of Motor Carriers conducted 2,338 compliance reviews of carriers of hazardous materials and initiated 100 enforcement cases that cited the registration regulations. This indicates a 96 percent compliance rate. During CY 1994 and 1995 RSPA's Office of Hazardous Materials Enforcement conducted 978 inspections of hazardous materials shippers and initiated 14 cases that involved the registration regulations, indicating a compliance rate of 98 percent.

GENERAL ADMINISTRATIVE

Question. How is RSPA doing in meeting the Presidential goal to reduce the number of Federal employees by 12 percent by 1999? It appears that you plan on keeping your personnel levels flat in the Research and Special Programs area, at 212 FTEs for both fiscal year 1996 and 1997. Why is that?

Answer. RSPA is on target toward reaching reduced personnel levels by 1999. The RSPA Streamlining Plan targets specific reductions to administrative positions identified by the Vice President's National Performance Review (NPR), as well as supervisor and manager positions. We are reducing these position levels by over 50 percent, particularly in the Research and Special Programs account. By 1999, we will have reduced the above targeted positions by an additional 15 FTE.

Question. Are there additional FTE savings possible due to reinvention or streamlining?

Answer. We believe that a reduction of over 46 FTE by FY 1999 in the administrative and NPR-targeted areas is the most that RSPA can propose while still providing support for critical safety and R&D programs. Recent increases to our safety inspector workforce has made demands for increased administrative support to ensure quality program delivery.

Question. Does your budget propose to close any DOT facilities? If so, which ones are proposed and at what savings?

Answer. No, RSPA's budget does not propose to close any of its facilities.

Question. Why are your efforts resulting in fewer FTE but request additional dollars for administrative support?

Answer. In Program and Administrative Support, the net growth of $108,000 in personnel compensation and benefits is due to a combination of mandatory increases offset by the amount of a three FTE decrease. Each fiscal year, personnel costs rise to support mandatory increases such as annualization of the prior year's raise, the estimated raise for the budgeted fiscal year, and within grade and other merit increases. Such mandatory growth is typically in excess of $200,000 for Program and Administrative Support. The savings in fiscal year 1997 are directly attributable to the FTE decrease within Program and Administrative Support.

RSPA SURFACE TRANSPORTATION RESEARCH

Question. The Research and Special Programs Administration focuses on identifying and coordinating multimodal and intermodal research. It has three principal responsibilities: technology sharing, policy formulation and research agenda-setting. RSPA carries out these responsibilities by supporting DOT's Research and Technology Coordinating Council working with the Volpe Center to develop the legislatively mandated Surface Transportation Research & Development Plan and overseeing contracts for research projects.

How will this Plan, the third edition, differ in substance from previous editions of the Plan?

Answer. The third edition of the plan will present DOT's strategic plan for maximizing the effectiveness of its R&D activities over the next ten years. The plan will identify resource scarcity as a key challenge facing the Department and the nation. In line with the Administrator's goals, the plan will refocus DOT's efforts on its key responsibilities as the federal steward of the nation's transportation system. It will align DOT's long-term R&D priorities with the strategic goals identified in the Department's January 1994 Strategic Plan.

DOT is, also, making a number of improvements to the plan. First, DOT will further increase efforts to engage outside experts from academia, industry, public interest associations, and the professional research community. Second, DOT intends to make an extensive effort to begin prioritizing R&D activities and identifying partnering opportunities, within the context of steady declines in Federal R&D resources. Third, having established a number of general long-term R&D thrusts, DOT intends to focus on planning and conducting research addressing these opportunities for technological, operational, and institutional innovation.

Question. What lessons have been learned about DOT's surface transportation research from preparing the initial plans?

Answer. The Surface Transportation R&D Plan translates the broad commitments of the DOT Strategic Plan into specific targets for technology development. It summarizes the major trends shaping transportation needs and available technologies over the next ten years, and isolates specific technologies or research thrusts for development during that period. These seventeen research thrusts are designed to take a multimodal perspective, so that RSPA can promote better integration and coordination of the Department's new technology development programs. The insights will be used throughout the Department in structuring its future research programs and funding requests.

Question. What are the most important issues that cut across multiple surface transportation modes?

Answer. The Department's Third Surface Transportation Research and Development Plan will identify seventeen major long-term DOT R&D thrusts essential for the fulfillment of the Department's central mission and strategic goals. They are: Transportation System Assessment and Knowledge Base; Intermodal Freight Transportation; Revitalization of the US Maritime Transport Industry; Improved Materials, Designs and Methods for Renewal Engineering; Advanced Technologies for Inspection, Monitoring and Maintenance of Vehicles and Infrastructure; Long Term Pavement Performance; Application of Information Technologies to Transportation System Operations; Advancement of Public Transit Vehicle Technology; Technical Foundation for High Speed Rail Systems; Accident Avoidance; Accident Survivability; Safety Data and Analysis; Security in Public Transportation; Environmental Impact Models and Data; Environmental Engineering and Technologies; Accessibility; and Transportation Disadvantaged.

Question. What actions is RSPA taking to assure that DOT's research agenda responds to these needs?

Answer. RSPA serves a key role in this area by providing support for detailed planning and project implementation for efforts identified in the R&D Plan and by Departmental coordinating committees. The three committees in place are functioning well, and their subcommittees are addressing specific technological initiatives needed by all the participants. RSPA also participates in government, industry, and university research and development priority-setting activities including the Transportation Research Board.

This participation enables RSPA to draw the line between such generic and mode-specific research is developing information on the applicability of new technologies, as well as the limits of that applicability, to support informed decision-making.

Question. What tangible results have been realized from efforts to coordinate research across surface transportation modes?

Answer. As a result of the Department's work to coordinate its surface transportation research programs, DOT has been able to eliminate duplicative projects from the research agendas of the various DOT operating administrations. Areas which historically have been the focus of such efforts include noise abatement techniques, transportation tunneling techniques, computer-based transportation planning packages, pavement material development, and applications of radionavigation techniques. In addition, research cost savings have resulted from more sophisticated program design, and multimodal applicability of modal-specific technologies has occurred.

Question. What are the principal obstacles to further improving research coordination?

Answer. When conducting research on any transportation technology intended for application by a single mode, some insights will be specific only to the mode itself, while others will be applicable to several other modes. The biggest challenges in research coordination are to establish the difference between the two, and to conduct the generally applicable research on as coordinated a basis as possible.

ST. LAWRENCE SEAWAY DEVELOPMENT CORPORATION

PREPARED STATEMENT OF GAIL C. McDONALD, ADMINISTRATOR

I am pleased to present my first budget as the new Administrator of the Saint Lawrence Seaway Development Corporation. The Corporation's FY 1997 budget is a fiscally responsible budget that allows the Corporation to fulfill its important mission while responding to the call for reduced federal spending.

The Corporation proposes to fund our FY 1997 programs from an appropriation request of $10.1 million from the Harbor Maintenance Trust Fund, $900,000 from offsetting collections from non-federal sources, and $1,170,000 from the Corporation's financial reserves. The Corporation's FY 1997 appropriation request is lower than its FY 1996 request, even though the Corporation is budgeting more money in FY 1997 for necessary capital expenditures to replace and maintain existing infrastructure. For FY 1997, the Corporation has reduced its administrative expenses (e.g., travel, utilities and communications, and supplies and materials). In FY 1997, the Corporation will draw from its financial reserves to cover most of the cost of the necessary capital expenditures.

The Corporation's FY 1997 budget projects a program level of $12.14 million. This includes $10.87 million to fund operating costs, including the Great Lakes Pilotage functions delegated to the Corporation by the Secretary of Transportation, and $1.27 million for capital projects and equipment, including upgrading of four stiffleg derricks. Increases in operating and labor expenses due to inflation or mandated by pay act and negotiated wage increases have been offset by management savings without impacting our essential operating functions.

As part of its service to shippers, the Seaway operates 24 hours a day during the navigation season, which normally runs from late March to late December. Transportation service is especially time-sensitive, and delays impact vessel profitability. Thus, the Corporation is staffed and its operating budget is programmed to provide vessels with timely and safe transits through the waterway.

The services provided to the world's shipping community by the Saint Lawrence Seaway Development Corporation continue to make significant contributions to the economic prosperity of the Great Lakes region and reflect our commitment to the goals of the Department of Transportation as articulated in the Department's Strategic Plan. The benefits generated by the Seaway for the U.S. Great Lakes region are significant. In 1994, for example, Seaway System shipping generated almost 50,000 jobs, $2.2 billion in annual personal income, $1.9 billion in total annual revenue by Great Lakes firms engaged in transporting and handling cargo through the system, and $101.7 million in state and local taxes.

Capital Investments

Corporation obligations for capital projects and equipment acquisition for FY 1997 are projected at $1.3 million. Included in the FY 1997 capital investment program are: upgrading of the four stiffleg derricks (stationary cranes) located at the Eisenhower and Snell Locks; preventive maintenance improvements to lock fenders; improvements to lock equipment and Corporation facilities; installation and testing of Global Positioning System (GPS) equipment; and improvements in safety and environmental working conditions of employees.

1995 Navigation Season Overview

United States Commerce through the Seaway:

United States international trade through the Seaway to overseas markets rose for the fourth consecutive shipping season to 12 million metric tons, an increase of 5 percent from 1994. The increase in 1995 was sparked by increased exports of manufactured iron and steel (up 24,615 percent, to 751,000 tons); corn (up 249 percent, to 2.2 million tons), wheat (up 92 percent, to 2.9 million tons), coal (up 63 percent, to 915,000 tons), and soybeans (up 9 percent, to 1.6 million tons).

1995 Navigation Season:

The 1995 navigation season, running from March 24 to December 28, was the longest shipping season in the Seaway's history (280 days). There were 2,775 vessel transits through the Seaway. Of particular note was the 16 percent increase in laker vessel transits in 1995. Overall cargo, 38.7 million metric tons, represented the third consecutive year of increased trade on the Seaway. The Corporation successfully negotiated extension of the navigation season by one week to take advantage of favorable weather conditions and heavy steel and grain export demand during the last months of the shipping season. The 1995 increase in traffic reflects the continuing improvement in the world economy, but this improvement also validates the success of the Corporation's efforts to control toll costs, provide top quality customer service, and aggressively promote the Seaway System internationally.

Tolls and Cost Containment:

In response to customer feedback, the Corporation won Congressional approval to eliminate the cumbersome system of billing-payment-rebate of American tolls by simply waiving collection of our share of tolls. Eliminating the old system cut "red tape", reduces expenses of the Treasury Department, and increases customer satisfaction from carriers that no longer have to tie up their capital waiting for a rebate.

Although the United States government has not funded the Seaway through toll revenues since 1986, the Corporation still plays an equal role in the bilateral toll negotiations with the Canadian St. Lawrence Seaway Authority. The Corporation persuaded the Authority to agree to freeze cargo and vessel tolls for the 1996 shipping season at 1993 rates. This is the third year in a row that tolls have been frozen and the freeze will enhance the competitiveness of the Seaway. Effective June 19, 1996 the Seaway entities announced agreement on a new incentive program for qualifying cargoes and vessels for the 1996, 1997, and 1998 navigation seasons.

The two Seaway entities agreed to waive 1995 year-end vessel surcharges on vessels that failed to report by the December 20 clearance date for their final passage through the Montreal-Lake Ontario section of the waterway. The surcharge waiver was in effect through the Seaway's closing date of December 29. A total of 14 vessels were granted a surcharge waiver.

Technological Advances:

As part of our program to adopt applications of Global Positioning System (GPS) technology, the Corporation's Marine Services crews used Differential GPS systems to deploy and position our buoys during the Spring 1995 buoy run. The use of this technology resulted in improved accuracy in buoy placement as well as a shorter time needed for the buoy run, with concomitant savings in overtime and vessel expenses.

A GPS-based automated vessel tracking system will enhance the current voice-VHF position report system to allow VTC operators to better manage the traffic pattern, to reduce vessel incidents and to improve response time in the event of an incident and thereby reduce the chance of environmental damage and loss of life and property. All vessels in the System will be displayed continuously in near real-time on the computer screen showing navigation charts of the Seaway in the VTC center. Vessel position, speed, course and related information could be displayed instantly at the VTC operator's finger tips.

The Seaway Corporation was directed in last year's budget conference report to submit a report to the Congress by May 1, 1996, addressing the division of responsibility and cost-sharing issues involved in the development, procurement, installation, and operation of the GPS system among the Corporation, Canadian Seaway Authority, U.S. Coast Guard, Canadian Coast Guard, and carrier representatives. The Corporation has formed a Steering Committee made up of representatives of these interested parties. The Steering Committee will determine the proper cost-sharing of the project costs, develop the overall project schedule, establish and approve the system requirements, review and approve system design, and oversee the installation and implementation of the system.

Major cost-sharing elements of the program include: 1) development of advanced engineering design including preparation of plans and specifications for shipboard units, communication links, and a computer display system, and all associated software; and 2) procurement and installation of 100 to 200 shipboard units. The cost of a computer display system at each vessel traffic control center along with the communication links will be the responsibility of each participating agency. The Corporation has put a hold on further GPS funding until we get an agreement from the interested parties.

Customer Service:

Since we provide direct services to the shipping industry, the Seaway has always been very sensitive to the interests of our customers. For example, the Corporation held five public meetings and two Canadian industry meetings to discuss various toll incentive issues. These meetings were held in Duluth, Milwaukee, Toledo, Ogdensburg, Montreal, and Toronto, and more than 118 people testified representing a variety of interests. Issues discussed at these meetings included the 1995 toll freeze, the Corporation's restructuring proposal, cargo preference laws, the rebuilding of the vessel fleet, and charges for certain Canadian Maritime Services.

We worked closely with ports to help them contain their costs, and awarded eleven "Port Pacesetter Awards" in 1995 for exemplary customer service and increased international commercial traffic.
Along with the Canadian Seaway Authority, we co-sponsored the "Seaway Industry Day" meetings in Montreal in 1995 and in early 1996 to bring together a diverse group of stakeholders in the Seaway System, with the focus on operational issues.

During the 1995 navigation season, the Corporation initiated a Customer Exit Survey of all ocean and lake vessels transiting the Seaway. The response to the survey was extremely positive, and the information received has been shared with the Canadian Authority to determine what areas are significant to improving customer satisfaction. The Corporation is working with the Authority to implement many of the suggestions and ideas generated by the Seaway's customers.

An important part of our customer service program is "Seaway Nightcast," a daily telex service detailing inbound vessel movements through the U. S. locks in Massena, New York. This information is available to Seaway customers to assist them in matching cargoes and vessels for the outbound voyage. The Corporation also provides "Seaway Nightcast" to the three U.S. pilot associations, which use the information to improve the safety and efficiency of their operations. The Corporation currently has 30 paid subscribers to "Seaway Nightcast."

Another important information service involves our use of the P.I.E.R.S. (Port Import Export Reporting Service) system developed by the Journal of Commerce. This system's ability to analyze specific commodities has been very useful to the Corporation and our customers in planning marketing strategies. We also publish monthly and quarterly newsletters of customer interest such as the "Calendar of Events", "Log Book", and "Seaway Market Advisory".

Our marketing function continues to serve as a focal point to bring together American and Canadian manufacturing and distribution interests to help them reach overseas markets. The Corporation sponsored two international Trade Missions in 1995, one to Italy and Morocco, and a second mission to Brazil and Venezuela.

Infrastructure Investment:

In 1995, the Corporation continued to maintain and improve our physical plant and capital equipment in Massena, New York. We continued repaving roadways and upgrading our telephone and electrical circuitry. We completed upgrade work on our water treatment plants and began construction of a sand/salt storage building that meets current OSHA and environmental standards for storage.

During 1995, we continued work on a multi-year project to replace significant amounts of deteriorated concrete in the walls of Eisenhower Lock. Concrete replacement was recommended by a 1991 Corps of Engineers study on lock stability, and is done by Corporation personnel during the winter season when navigation is suspended and the locks can be dewatered. Unusually severe weather conditions in early 1994 adversely impacted our schedule for concrete replacement. In 1995, the planned work period was reduced by about two weeks due to a late 1994 closing and early 1995 opening of the navigation season. In 1995, 520 cubic yards of concrete were replaced. In early 1996, it became apparent that work could not be completed by the end of the winter work period. As was the case in 1994-95, a late closing and early opening reduced the planned work schedule by two weeks. The deteriorated concrete had extended to depths deeper than originally estimated. Moreover, extensive concrete replacement was required on the downstream sill. Despite the time limitations and the advanced state of the concrete's deterioration, the Corporation, by working three shifts a day, was able to replace 645 cubic yards of concrete during the first three months of 1996. Future concrete replacement work will be rescheduled for FY 1998 as the winter maintenance program for FY 1997 will focus on overhauling lock machinery and preventive maintenance of electrical and lock equipment at the locks.

Environmental and Safety Issues:

During FY 1995, the Corporation continued its foreign vessel screening program at the port of Montreal, under the auspices of the U.S. Coast Guard. During Fiscal Year 1995, 166 vessel boarding/screenings were conducted to assess vessel condition and compliance with anti-pollution laws such as the Oil Pollution Act of 1990 and the Non-indigenous Aquatic Nuisance Prevention and Control Act of 1990. Safety items inspected include vessel construction and standard safety equipment, ballast water, radio telecommunications, certificates of financial responsibility, and navigation charts and logs. The Corporation was nominated and will receive a Hammer Award from the Vice President's National Performance Review for its vessel screening program as an outstanding example of making government more responsive.

The Corporation co-hosted its fifth annual emergency response exercise along the St. Lawrence River in Hogansburg, N.Y., on August 22, 1995. The exercise involved more than 20 U.S. and Canadian local, state, provincial and federal agencies that have been designated in the Corporation's Emergency Response Plan to assist in any emergency situation along the St. Lawrence River. The scenario involved a tanker vessel striking the Seaway International Bridge, spilling approximately 10,000 gallons of Bunker C oil into the river and injuring several crew members.

The Corporation participated in the second International Canals and Waterways Chief Executive Officers' Conference. The Corporation helped organize the conference, which included representatives from the Canadian Seaway Authority, Suez Canal, Danube River Basin Commission, Straits of Bosphorus and Dardanelles, the Corinth Canal, and the Panama Canal Commission. The conference focused on issues such as management practices, maritime safety issues, operation and maintenance procedures, environmental protection issues, international maritime trade development, pilotage, tolls, and technological advancements.

Reinvention and Transformation:

The Corporation joined other Federal agencies in 1995 to implement National Performance Review initiatives such as labor-management partnerships, regulation reduction, and downsizing.

The Corporation published its second comprehensive Strategic Plan in 1995, outlining goals and strategies for maintaining our competitiveness into the next century.

In FY 1995, the Corporation made significant changes to the binational Seaway Regulations and Rules and Tariff of Tolls, in accordance with President Clinton's Regulatory Reinvention Initiative. The Corporation's proposal to amend the Tariff of Tolls will simplify the regulations by 18 percent, while changes to the Seaway Regulations and Rules will result in a 24 percent simplification.

On January 5, 1995, the Corporation and its employee union, AFGE Local 1968, signed a "Partnership Agreement" as a way to bring management and the union together to identify problems and research and recommend solutions to better carry out the agency's mission. The agreement set up a Partnership Council comprised of five members selected by management and five members selected by the union. The Council meets once a month to discuss issues that affect the goals and objectives of the Corporation, and will conduct an annual review to develop ways to improve the agreement.

Transfer of Great Lakes/Seaway Pilotage Responsibilities:

In FY 1995, Secretary Peña proposed the transfer of certain economic regulatory responsibilities under the Great Lakes Pilotage Act of 1960 from the U.S. Coast Guard to the Corporation. On July 31, 1995, an interim final rule was published in the Federal Register detailing those functions to be transferred to the Corporation. On December 11, 1995, the final rule implementing the transfer was published. The functions that were transferred include: the investigation and prosecution of violations of the Great Lakes Pilotage Act of 1960; the registration, qualification and training of registered pilots; regulation of association working rules, dispatching conditions, and pilot working conditions; regulation of the selection, number and availability of pilots, and pilotage pools; approval of the articles of association; and auditing of pilot associations and ratemaking. The Coast Guard employees responsible for regulating Great Lakes/Seaway Pilotage, including the Director of Great Lakes Pilotage, transferred to the agency and are now Corporation employees. Two of the three U.S. pilot districts, District 1 and 3, filed suit in the U.S. District Court for the District of Columbia appealing the transfer by the Secretary of Transportation. On April 22, the court issued a final decision and order denying the appeal and finding for the Department on all counts. Pilot Districts 1 and 3 filed an appeal of the decision on May 14.

1996 Outlook

The Corporation has successfully negotiated an agreement with Canada's SLSA to freeze toll levels for a third consecutive year. This toll freeze agreement will help to consolidate the Seaway's improved competitive position in the North American transportation marketplace. Moreover, the SLSDC and the SLSA agreed to a new Incentive Tolls Program offering toll reductions for qualifying cargoes and vessels for the 1996, 1997, and 1998 navigation seasons. The new program offers toll rebate incentives for increased traffic and new traffic into the Seaway as well as an "alternative use of laker" incentive that is applicable to certain general and containerized cargo.

Additionally, Secretary Peña's decision to transfer the responsibilities concerning economic regulation of Great Lakes pilotage to the Corporation will make the Great Lakes St. Lawrence Seaway System a more fully integrated and user friendly environment for international shipping.

However, certain market uncertainties and other exogenous factors cloud the freight picture for the 1996 navigation season. Canadian grain, historically the Seaway's largest commodity, will move outside of the influence of the Canadian Western Grain Transportation Act (WGTA) for the first full season in 1996. What effect the repeal of the WGTA will have on Canadian grain movements through the Seaway is still unclear at this point. Some grain market observers feel that the end of this subsidy will change grain traffic patterns in a way that may disadvantage Seaway commerce. Moreover, the carryover stocks of grain at the beginning of the navigation season are very low. In April, U.S. grain movements and transshipments through St. Lawrence River elevators were temporarily impeded by the Canadian Agriculture Ministry's treatment of grain products, which they feared to be contaminated with the Karnal Bunt fungus. A new testing procedure was negotiated by the two countries and shipments of grain resumed.

While we expect iron and steel related product traffic to remain strong in 1996, an explosion on March 27 at one of the Great Lakes most productive mini-mills at Burns International Harbor in Indiana has taken that steel processing plant off-line and the effect on steel traffic for that particular mini-mill is unknown at this time.

We remain, however, broadly optimistic about the 1996 season. Early forecasts projected traffic levels at or near those of 1995. In light of recent developments, we have tempered our optimism somewhat. We plan to continue to work closely with our Canadian counterparts during 1996 to achieve reductions in other Seaway government-imposed costs, particularly those associated with the Welland Canal.

QUESTIONS SUBMITTED BY SENATOR HATFIELD

NAVIGATION SEASON

Question. Please provide the opening and closing dates and number of shipping days for the Seaway for the 1992, 1993, 1994 and 1995 navigation seasons, and the opening date for 1996.

Answer.

Shipping Season	Opened	Closed
1992	Mar. 30	Dec. 23
1993	Mar. 30	Dec. 26
1994	Apr. 5	Dec. 29
1995	Mar. 24	Dec. 28
1996	Mar. 29	

ADVISORY BOARD MEMBERSHIP

Question. By this time last year, only two of the five authorized positions on the Seaway Advisory Board had been filled. Please list all the current members of the Seaway Advisory Board. Provide each Board member's term dates and a brief description of their employment background and qualifications.

Answer. Currently, the Advisory Board has four members appointed of the authorized five member positions and one member confirmed, on June 11, 1996, by the Senate. The first member is Anthony S. Earl, who is a partner in the law firm of Quarles and Brady and was previously Governor of the State of Wisconsin, chaired the Committee on Energy and Environment of the national Governor's Association, served as Secretary of the Wisconsin Department of Natural Resources, and was a member of the Board of Directors of the Great Lakes Protection Fund. The second member is Vincent Sorrentino, who is a senior partner in the Buffalo, New York, law firm of Cole, Sorrentino, Hurley, and Hewner and serves as a Commissioner of the Erie County Water Authority, the Buffalo and Fort Erie Bridge Authority, and the Canadian-American Authority. The third member is Jay Ehle, who is the retired President of Cleveland Builders Supply, former Chairman and CEO of the Cleveland-Cuyahoga Port Authority, and has served as a special consultant to its Board. The fourth member is George Milidrag, who is an engineer and business man who founded Engineering Technology, Ltd., (Entech) of Troy, Michigan, and has a long experience of dealing with engineering and environmental problems and traffic control. The fifth confirmed member is William Wilson, who is a Research Fellow at the center for Urban and Regional Affairs at the University of Minnesota's Hubert Humphrey Center in Minneapolis. Mr. Wilson has also served as a member, and from 1989-1993, President of the Saint Paul City Council, served as Commissioner of the Saint Paul Port Authority, worked with the Minneapolis Economic Development Agency and the Saint Paul Department of Planning and Economic Development, and as a member of the Board of Directors of the Minneapolis World Trade Association. Each member serves at the pleasure of the President with no set term.

AUTHORIZING JURISDICTION AND LEGISLATION

Question. Who are the Seaway Corporation's House and Senate authorizing committees? Under what laws is the Saint Lawrence Seaway Development Corporation currently authorized? When does this authorization expire?

Answer. The committees are, the House Committee on Transportation and Infrastructure, Bud Shuster, Chairman and the House Subcommittee on Water Resources and Environment, Sherwood L. Boehlert, Chairman; the Senate Committees are Commerce, Science and Transportation, Larry Pressler, Chairman and the Senate Subcommittee on Surface Transportation and Merchant Marine, Trent Lott, Chairman.

The Corporation is authorized under the Seaway Act, Public Law 358 of May 13, 1954. There is no authorization expiration date.

HARBOR MAINTENANCE TRUST FUND

Question. Do all U.S. ports participate in the collection of the ad valorem user fee on commercial shippers (12 and 1/2 cents per $100 cargo value), which constitutes the revenue source for the Harbor Maintenance Trust Fund? If there are any exceptions, please explain who is excepted, and why.

Answer. The 1986 Water Resources Development Act, Public Law 99-662 does contain exceptions for certain ports and facilities as follows.

"The term 'port' does not include any channel or harbor with respect to which no Federal funds have been used since 1977 for construction, maintenance, or operation, or which was deauthorized by Federal law before 1985." There is also an exception from the fee for cargo loaded or unloaded for movement between United States mainland ports and ports located in Alaska, Hawaii, or any possession of the United States.

The exceptions were developed during Congressional deliberations on the 1986 Act without further information available on "why" they were established in the law.

Question. Display in tabular form the amounts of revenue paid into the Harbor Maintenance Trust Fund in calendar (or fiscal) years 1993, 1994, 1995 and 1996. For each year, include a column which displays the amount of funds appropriated from the trust fund to the Saint Lawrence Seaway Development Corporation, and another column that shows the outlay of funds for the Corps of Engineers' harbor operation and maintenance costs, as well as any other trust fund recipients.

Finally, include a column giving the trust fund balance at the end of each year shown.

Answer. The latest data we have from the Office of the Secretary of Defense is the Fiscal Year (FY) 1994 report. Data excerpts are as follows:

Harbor Maintenance Trust Fund Revenue and Transfers
(fiscal years and thousands of dollars)

			(Estimated)	
	1993	1994	1995	1996
Beginning Balance	$120,931	$303,277	$452,360	$645,246
Revenues	650,722	646,191	665,296	717,547
Transfers				
SLSDC	13,584	10,765	10,229	10,243
Toll Rebates	8,074	9,546	0	0
Corps	446,434	476,620	462,000	499,000
DOT	160	175	181	169
Admin.	124	0	0	4,000
NOAA	0	0	0	45,500
Year-end Balance	$303,277	$452,360	$645,246	$803,881

Notes:
Admin. covers toll rebates only in 1993, included in rebates line for 1994, 1996 is an estimated internal improvement program to increase revenue collections; NOAA funding in 1996 is a legislative assumption.

ST. LAWRENCE SEAWAY/GREAT LAKES TOLL STRUCTURE

Question. Please describe the current toll structure of the entire St. Lawrence Seaway/Great Lakes system.

Answer. The current toll structure includes tolls on cargo, per metric ton and vessel tolls per gross registered ton at both lock sections. In addition there are lockage fees at the Welland Canal. All tolls are Canadian and payable in Canadian dollars. The actual fees are noted below.

	Canadian Seaway Tolls ($ per cargo metric ton)
Montreal/Lake Ontario	
Bulk	0.83
Coal	0.49
Containers	0.83

Government Aid	0.00
Grain	0.51
Steel Slabs	1.81
General	2.00
Vessel charge per gross registered ton	0.08
Welland Canal	
Bulk	0.55
Coal	0.55
Containers	0.55
Government Aid	0.00
Grain	0.55
Steel Slabs	0.63
General	0.88
Vessel charge per gross registered ton	0.13
Vessel lockage charge for eight locks	
Loaded	3,520.00
Ballast	2,600.00

Question. What recent negotiations have been held with the Canadian Seaway Authority regarding reducing tolls on the Canadian sections of the seaway system? What have been the results of these negotiations?

Answer. 1996 toll negotiations began in late March and resulted in a third year of the toll freeze. On April 3, 1996 the Seaway entities announced agreement that the toll freeze, at the 1993 tariff level, would remain in effect for the 1996 navigation season. Ongoing negotiations resulted in an agreement on a new incentive toll program announced June 19, 1996 to be effective immediately through the 1998 navigation season. Potential restructuring of the Welland Canal lockage fees to a cargo or vessel GRT basis for assessment will be part of continued discussions in 1996. The Tariff of tolls is applicable to both the United States and Canadian sections of the Seaway System.

TRANSFER OF GREAT LAKES/SEAWAY PILOTAGE RESPONSIBILITIES

Question. Effective December 11, 1995, certain economic regulatory responsibilities under the Great Lakes Pilotage Act of 1960 were transferred from the U.S. Coast Guard to the Seaway Corporation. In addition, employees responsible for regulating pilotage on the seaway have been transferred to the agency. Please describe the new regulatory responsibilities which have been transferred to the Corporation.

Answer. Thirteen functions were identified in the regulation of Great Lakes Pilotage. Two were considered to be wholly related to safety while the remaining ones were considered to be economically operational in nature with some concern for safety. The eleven economically related functions for which the St. Lawrence Seaway Development Corporation has oversight responsibility include investigation/prosecution of Great Lakes Pilotage Act violations, registration/qualification/training of registered pilots, association working rules and dispatching procedures, pilot working conditions (rest periods, etc.), selection of pilots, number of pilots, availability of pilots, number of pilotage pools, articles of association, auditing, and ratemaking. These eleven pilotage functions are common to all three pilotage districts each with an independent pilots' association. The two wholly safety related functions which were retained by the Coast Guard include licensing of pilots and investigation of marine accidents. Four positions were included in the transfer of Great Lakes Pilotage to the St. Lawrence Seaway Development Corporation. Three of these positions are occupied by those individuals who were already performing the duties. They include the Director, Deputy Director, and Chief Economist. A clerical billet was transferred unencumbered and filled immediately. Until the fall of 1995 a full time auditor was attached to the Coast Guard staff. However, this billet was eliminated by the Coast Guard and replaced by a contract for audits. The contract funds were transferred to the St. Lawrence Seaway Development Corporation and the audits have been performed by a contractor. There are no increased costs associated with the transfer, and in fact, were reduced primarily by the audit contract which is being conducted at approximately $30,000 under budget.

Question. How many positions were associated with this transfer? What are the personnel and benefits costs for the remainder of fiscal year 1996, and budgeted for fiscal year 1997? What other increased costs are associated with this transfer?

Answer. Four positions were associated with this transfer. The estimated personnel and benefits costs for the remainder of fiscal year 1996 are $94,000, and $308,000 has been budgeted for fiscal year 1997. Other costs increased by this transfer include travel, supplies and materials, computer services, audit services, and equipment.

Question. Please summarize for the Committee the legal disputes that were associated with the personnel transfer, and how these difficulties have been resolved.

Answer. On April 23, 1996, the United States District Court for the District of Columbia granted the Department of Transportation's motion for Summary Judgment in Halverson v. Peña, a suit brought by two of the three Great Lakes pilotage associations challenging the transfer. The Court upheld all aspects of the final rule transferring the essentially economic pilotage functions from the U.S. Coast Guard to the Corporation. A Notice of Appeal was filed by the plaintiffs in the U.S. Circuit Court of Appeals on May 14, 1996.

PUBLIC MEETINGS ON PROPOSED SEAWAY CHANGES

Question. In Spring 1995, the Seaway Corporation hosted five public meetings in Duluth, Minnesota; Milwaukee, Wisconsin; Portage, Indiana; Toledo, Ohio; and Ogdensburg, New York to discuss proposed changes on the Seaway. In last year's hearing record, you summarized the results of these meetings and listed six recommended actions. Please describe your progress in the six areas:

(1) Reduce Canadian-imposed seaway tolls through negotiation;

(2) Reduce lockage fees on the Welland Canal;

(3) In cooperation with Seaway Authority and Canadian Parliament, improve competitiveness of the seaway;

(4) Establish incentive program for building/retrofitting seaway-sized vessels;

(5) Break away Seaway Corporation from DOT to independent corporation status; and

(6) Eliminate duplication of operational activities between the Seaway Corporation and the Seaway Authority.

Answer. In reference to items (1) through (4) the ongoing 1996 toll negotiations to date, have resulted in a third year of a toll freeze at the 1993 tariff level which in effect is similar to a toll reduction from any proposed increases. The lockage fee issue and incentive toll programs are part of ongoing discussions at this time. In terms of competitiveness we believe the continued toll freeze contributes significantly to that end, and also the recently released SLSDC State of the Seaway Fleet report which raises the issue of a long term System competitiveness through expansion of the Seaway capable fleet of vessels. The most recent Parliamentary competitiveness initiative is focussing on a binational Seaway arrangement and development of a broad base of support for same.

Number (5) above: Earlier this year the Department determined that the SLSDC reorganization proposal to become an independent agency was no longer viable without a related Department legislative initiative. Early in March, 1996, the Corporation was nominated as a candidate for restructuring as a Performance Based Organization (PBO) under the auspices of the National Performance Review. As a PBO the Corporation would remain within the Department but benefit from flexibilities available to PBO organizations. The Corporation PBO status at this time is pending completion of draft legislation review by OMB and interested agencies.

Number (6) above: Primary discussions between the Seaway entities have focussed on tolls and action plans for implementing feedback from customer surveys. Discussions on mutual operational activities have been deferred by the Seaway Authority pending decisions on the agency's restructuring by the Canadian Ministry of Transport. Following recent meetings on June 5, 1996 between Ministry and Department Officials we anticipate an opportunity to development an agenda and to participate in formal U.S. and Canadian discussions on several Seaway issues which include the potential for binational operating programs.

Question. Please update the Committee on any preliminary discussions or other efforts to renegotiate the Seaway Agreement to create a Binational agency to manage and operate the Great Lakes/St. Lawrence Seaway System.

Answer. The Corporation has not participated in any discussions with the Canadians to renegotiate the Seaway Agreement or to create a binational agency. The potential for a binational agency is often referenced in meetings and issue papers, but only in the most general terms at this time. For example, the binational issue was raised at the June 5 discussions noted above. Two recent efforts that will raise the issue in a more formal context include the U.S. and Canadian meetings referenced above and a Canadian Parliamentary initiative by MP Joe Comuzzi who represents Thunder Bay/Nipigon, Ontario. Mr. Comuzzi has been appointed to determine the mechanism for the implementation of a binational Great Lakes/St. Lawrence Seaway System. Through meetings and discussions in the U.S. and Canada, Mr. Comuzzi plans to complete his recommendations by June 30, 1996.

Question. What data are available on the number of lake and Seaway-dimension ships, in the United States and worldwide? What are the trends for the number of these types of commercial vessels?

Answer. The Corporation recently completed a study of Seaway dimension ships. The study titled, "State of the St. Lawrence Seaway Vessel Fleet", was prepared by the Corporation using several computerized databases provided by some of the world's leading shipping institutions. Vessels with an overall length of 740 feet or less, beam (width) of 78 feet or less, and height above water level of 116.5 feet or less, were counted as Seaway-sized.

More than 14,500 commercial vessels, or 41 percent, of the world's merchant vessel fleet in excess of 300 gross registered tons (GRT) are capable of transiting the St. Lawrence Seaway's locks and channels, according to the fleet inventory analysis.

The study was conducted to analyze both the size and condition of ships in the world's commercial vessel fleet that are capable of transiting the Great Lakes St. Lawrence Seaway System's locks and channels. The Corporation intends to use the study to target its marketing and promotional efforts to vessel owners and operators who either currently own or may seek to acquire Seaway-sized vessels. The study's base finding of 14,558 Seaway-sized vessels was further recalculated to include only the Seaway's traditional vessel types, namely bulk, tweendecker (breakbulk), and Great Lakes bulk ships. This traditional fleet base still represents 37 percent of the world's fleet, or 13,193 vessels.

In projecting the state of the Seaway's future fleet in the year 2005, a number of challenges were addressed, including the lack of newbuildings. The study concluded that only 68 vessels of the current fleet of more than 25,000 deadweight tons (DWT) will be under 20 years old in 2005. Further, there would be only two vessels out of the current Great Lakes bulk fleet total of 95, of any size DWT, that would be 20 years old or less in 2005. Due to the vessel replacement trend the Seaway maritime community must work together to encourage fleet development. In order to meet the growing trade demands of the Great Lakes region with foreign markets, there must be some investment in the building and retrofitting of Seaway-sized vessels.

CAPITAL PLAN

Question. Please provide the updated five-year capital plan for the Seaway Corporation displayed on page 509 of last year's hearing record (Senate Hearing 104-76, part 3).

SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION FY 1997-2001 FIVE YEAR CAPITAL PLAN
(thousands of dollars)

	1997	1998	1999	2000	2001	TOTAL
CAPITAL EQUIPMENT 101						
Office Equipment and Services						
Office and Computer Equipment	10	10			10	$ 30
Vehicles, Vessels, & Heavy Equipment						
Light Trucks, Vans & Vehicles	20		25	70	80	195
Heavy and Special Purpose Trucks	65	75				140
Light & heavy equipment		65	70	550		685
Smallcraft (IO's, trailers, motors)		5	25		25	55
Tugs and Workboats		450				450
Shop Equipment, Tools, and Spare Parts						
Misc. Equipment,Tools,Parts,Machinery		30				30
Nav Aids, Channels, River Improvements						
Emergency Response Equipment				25		25
Total Capital Equipment	$95	$635	$120	$645	$115	$1,610
CAPITAL PROJECTS 107						
Office, Shop, Facility Improvements						
Waste Water Treatment Facilities					100	100
Construct Drydock @ Snell Lock					500	500
VTC Center Improvements	40		35			75
Facility Roof Replacements		35	20	150		$ 205
Vehicles, Vessels, & Heavy Equipment						
Buoy Barge Improvements				25		25
Roads, Bridges, & Grounds Improvements						
Paving & Drainage	100		400			500
Vessel Transit & Traffic Control						
Replace Electronic Lock Equipment	25	45	120	30	30	250
GPS Applications	100					100
VTC Telecommunication System	40					40
Lock Improvements						
Electrical Equipment Upgrade		25	25	25	30	105
Mechanical Equipment Upgrade	35	25	25	25	30	140
Grout Downstream Gate Monoliths			100			100
Improve Guidewall/Guardwall Fendering	45				50	95
Stifflegs Derricks	770	35				805
Safety, Health, & Suggestions						
Safety & Environment Improvements	20	20	20	20	20	100
Total Capital Projects	$1,175	$185	$745	$275	$760	$3,140
Total Equipment and Projects	$1,270	$820	$865	$920	$875	$4,750

REVENUE AVAILABLE

Question. Please update the table on pages 510 of last year's hearing record regarding revenue available by source in 1996 and 1997.

Answer.

	FY 1996	FY 1997
Interest on retained earnings...	$500,000	$500,000
Concession Operation............	300,000	300,000
Rental of Admin. Bldg...........	47,000	42,000
Miscellaneous...................	53,000	58,000

FINANCIAL POSITION

Question. Please update the tables on pages 510 through 512 of last year's hearing record regarding the statement of your financial position, as well as the statement of operations and changes.

Answer.

SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
STATEMENT OF FINANCIAL POSITION
AS OF SEPTEMBER 30, 1995, 1994 AND 1993
(in thousands of dollars)

	1995	1994	1993
ASSETS			
Current Assets:			
Cash:			
Held by U.S. Treasury...	$2,631	$4,031	$3,597
Held in banks and on hand................	13	22	23
Time deposits in minority banks.........	11,610	10,386	11,577
Tolls and other receivables............	138	1,510	1,755
Other current assets....	4	3	48
Inventories.............	292	316	324
Total current assets....	14,688	16,268	17,324
Plant, property, and equipment:			
Plant in service........	151,495	150,993	150,491
Less accum depreciation.	-62,250	-60,205	-57,859
Net plant in service....	89,245	90,788	92,632
Work in progress........	162	429	280
Total plant, property and equipment..........	89,407	91,217	92,912
Other assets:			

Lock spare parts........	659	674	682
Less accum depreciation.	-82	-54	-28
Net lock spare parts....	577	620	654
Investment in Seaway Int'l Bridge Corporation, Ltd.	7	7	7
Total other assets......	584	627	661
Deferred charges:			
Workman's Compensation Benefits...............	1,232	1,179	...
Total deferred charges..	1,232	1,179	...
Total assets..........	105,911	109,291	110,897

SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
STATEMENT OF FINANCIAL POSITION
AS OF SEPTEMBER 30, 1995, 1994 AND 1993
(in thousands of dollars)

	1995	1994	1993
Liabilities and equity of the U.S. Government			
Current Liabilities:			
Payable to the U.S. Treasury................	$0	$1,403	$1,571
Accounts payable........	743	875	845
Accrued Leave...........	611	596	566
Accrued payroll costs...	297	293	277
Deferred revenue........	...	3	...
Total current liabilities............	1,651	3,170	3,259
Actuarial Liabilities:			
Workman's Compensation Benefits...............	1,232	1,179	...
Total actuarial liabilities............	1,232	1,179	...
Total liabilities.....	2,883	4,349	3,259
Equity of the U.S. Government:			
Invested capital........	104,230	106,050	107,672
Cumulative results of operations.............	-1,202	-1,108	-34
Total equity of the U.S. Government......	103,028	104,942	107,638
Total liabilities and			

equity of the U.S. Government...........	105,911	109,291	110,897

SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
STATEMENTS OF OPERATIONS AND CHANGES IN CUMULATIVE
RESULTS FOR THE YEARS ENDED
SEPTEMBER 30, 1995, 1994 AND 1993
(in thousands of dollars)

	1995	1994	1993
Operating revenues:			
Appropriations expended.	$9,337	$9,694	$9,609
Other....................	467	534	872
Total operating revenues	9,804	10,228	10,481
Operating expenses:			
Locks and marine oper...	1,999	1,971	2,008
Maintenance and engineer	3,166	4,021	3,100
General and development.	2,486	2,947	2,935
Administrative expenses.	2,800	2,746	2,711
Depreciation............	2,667	2,693	2,648
Total operating expenses	13,118	14,378	13,402
Operating loss..........	-3,314	-4,150	-2,921
Other financing sources:			
Interest on deposits in minority banks.........	553	383	447
Transfer from invested capital for depreciation	2,667	2,693	2,648
Total other financing sources................	3,220	3,076	3,095
Excess of operating revenues and other financing sources over operating expenses.....	-94	-1,074	174
Beginning cumulative results of operations..	-1,108	-34	-208
Ending cumulative results of operations..	$-1,202	$-1,108	$ -34

VESSEL CASUALTIES

Question. Please update the table on page 531 of last year's hearing record listing vessel incident records in the American waters of the Seaway for the 1995 navigation season, and for the 1996 navigation season to date.

Answer. See below:

Vessel Casualties

There were no major vessel casualties (groundings, collisions, and/or damage to facilities over $50,000) during FY1995. Major incidents in the American Waters for the 1996 navigation season to date are as follows:

Vessel Name	Date	Location	Damage	Cause
Steel Flower	4/5/96	Near Lt. 212	Grounding (no poll./ dmge. to to vess.)	Lost Power
Algoriver	4/23/96	Ogden Isl.	Grounding	Lost Steering (no pollution)
Petka	5/15/96	Snell Lock	Structural damage to cell	Struck Wall

CONSULTING SERVICES

Question. What consulting services were used in fiscal year 1995 and thus far in fiscal year 1996? Please provide a listing of the consulting services used, along with purposes and attendant expenses for each service.

Answer. In fiscal year 1995, consulting services were limited to Martin Associates, who provided an update to a 1991 Study of Economic Impacts of the Great Lakes/Saint Lawrence Seaway System at a cost of $5,000. The Corporation has no amount budgeted for consulting services in fiscal year 1996.

Question. In last year's Senate report 104-126, it was recommended that consulting services be given careful consideration for adjustment when making FY 1996 funding decisions, due to the fact that very little justification for the annual $50,000 budgeted for these services had been provided to the Committee. In the conference report accompanying the FY 1996 bill, an unspecified reduction of $40,500 was made from the Corporation's budget request. Did this reduction impact the Corporation's consulting services in 1996.?

Answer. The Corporation did not budget for any consulting services in 1996.

MANAGEMENT SAVINGS

Question. How was the estimated fiscal year 1997 management savings in the cost of the Corporation's health insurance benefits program achieved? What were the amounts spent on health insurance in fiscal year

1995, 1996, and estimated for 1997?

Answer. The Corporation's health insurance costs have declined due to negotiations with our local union regarding employee/employer cost sharing.

	FY 1995	FY 1996	FY 1997
Health Insurance Costs	$653,734	$523,330	$448,313

Question. How was the estimated fiscal year 1997 management savings in the cost of the Corporation's capital outlay program achieved? What were the amounts spent on the capital outlay program in fiscal years 1995, 1996, and estimated for 1997?

Answer. The estimated savings in the capital outlay program for fiscal year 1997 will result from overall cuts to planned projects.

	FY 1995	FY 1996	FY 1997
Capital Outlay Costs	$674,000	$745,000	$1,270,000

Note: FY 1997 capital costs include atypical project of upgrading stiffleg derricks at $770,000.

TRAVEL AND TRANSPORTATION COSTS

Question. In a similar format to that on pages 517 through 520 of last year's hearing record, please provide a listing of trade, mini-trade, Lake State, industry, and other travel missions made by or planned for Seaway personnel September 1995 through September 1996. Be inclusive, including the dates of travel, trip purposes, location, Seaway Development Corporation representatives, travel costs for each, and actual or planned trip results.

Answer. 1995 Trade Mission to Brazil, Venezuela and Panama. Dates: September 22 to October 3. Purpose: To promote the shipment of U.S. exports and imports through the Seaway to and from Central and South America, and to gain a better understanding of how the Panama Canal and the St. Lawrence Seaway can share information and operational and engineering expertise to improve their performance and customer service. Locations: Rio de Janeiro, Caracas, and Panama City. Total cost: $62,372. Corporation representatives and their travel costs: Acting Administrator D. Sanders - $2,572; Trade Mission Director Stephen J. Rybicki - $1,365 (mission) and $4,921 (pre-advance); Advance Officer Shelley Laracuente - $1085. Results: A shipment of 500,000 tons of HBI from Venezuela to mini steel mills in the Great Lakes region; the Corporation and the Panama Canal Commission established an Employee Exchange

Program; plans for the shipment of fertilizers, iron ore, and other minerals are being arranged for movement between Brazil and North America; arrangements to move DRI and HBI between Venezuela and mini-mills in Cleveland are underway.

1996 Trade Mission to Norway, Denmark and the Netherlands. Dates: March 16 to 23. Purpose: To generate business opportunities for the Great Lakes regional economy by informing prospective Seaway users of the tremendous opportunities available in the Great Lakes region for importing and exporting cargo. In a departure from past trade missions, this trade mission placed greater emphasis on seeking out ship owners, operators, and vessel financiers to inform them of the new economic and financial environment at work in the Seaway System. Total cost: $35,700. Corporation representatives and their travel costs: Administrator Gail C. McDonald - $1,652; Deputy Administrator David Sanders - $1,696; Trade Mission Director Stephen J. Rybicki - $3,488 (pre-advance) and $1,800 (mission); and Advance Officer Shelley Laracuente - $1,117. Results: At least 18 new ships will be built with Seaway fittings and are planning to trade in the Seaway (the first is scheduled to call on the port of Chicago in August); the port of Duluth expects to handle a shipload of drilling equipment from Denmark this summer; the port of Toledo received a shipload of fertilizers from Norway and three more shipments are scheduled for later this year; two shiploads of U.S. export grain totaling 33,000 tons were arranged for delivery to Europe; and one shipload of U.S. grain was fixed for delivery to the Mediterranean.

Question. For fiscal years 1994 and 1995 actual, and fiscal years 1996 and 1997 estimated, please break out travel and transportation of persons into two categories: (1) trade and travel missions to both potential new markets and traditional markets; and (2) non-trade related travel.

Answer. The information follows.

	1994	1995	1996	1997
Trade and travel missions	17,000	30,000	30,000	23,000
Non-trade related travel	174,000	128,000	128,000	128,000

MARKETING

Question. In as clear and precise a manner possible, please describe specific benefits and new trade or business resulting from previous Seaway trade missions conducted in calendar years 1994 and 1995.

Answer. 1994 Trade Mission to South Africa.

Locations: Johannesburg and Durban. Dates: March 11 to 19. A surge in bookings for a carrier representative on the mission for shipments between South Africa and the Seaway System, shipments of granite from Durban to Ohio, shipments of paper products from Durban to points in the Great Lakes.

1994 Trade Mission to Finland, Sweden and Estonia. Locations: Helsinki, Stockholm and Tallinn Dates: September 16 to 24. Shipments of pulpwood and pulpwood logs between Duluth and Finland, and steel shipments from Sweden to Detroit.

1995 Trade Mission to Italy and Morocco. Locations: Milan and Casablanca. Dates: March 24 to April 1. Fertilizer shipments from Morocco to the port of Ogdensburg; wheat shipments from the United States to Italy shipped by Louis Dreyfus. Steel shipments to and from Italy and North America.

1995 Trade Mission to Brazil, Venezuela and Panama. A shipment of 500,000 tons of HBI from Venezuela to mini steel mills in the Great Lakes region; the Corporation and the Panama Canal Commission established an Employee Exchange Program; plans for the shipment of fertilizers, iron ore, and other minerals are being arranged for movement between Brazil and North America; arrangements to move DRI and HBI between Venezuela and mini-mills in Cleveland are underway.

SEAWAY SPONSORED EVENTS

Question. Please provide a listing of any trade, industry, or other visits, seminars, or "summits" at the Seaway that have been sponsored by the Corporation during the last year. Please outline the results of and benefits derived from each of these sponsored events.

Answer. June 7, 1995, and June 13, 1995: the Corporation hosted Canadian industry meetings in Montreal, Quebec, and Toronto, Ontario, to discuss the Corporation's position on Seaway tolls and other issues facing the waterway and its industry. The meetings were the Canadian equivalent to the five U.S. public meetings held earlier in the spring of 1995. Result/Benefits: After gathering testimony from the two Canadian industry meetings, coupled with comments from the five U.S. public meetings, the Corporation will proceed with the following actions: (1) continue annual toll negotiations with the Canadian St. Lawrence Seaway Authority seeking annual reductions of Seaway tolls; (2) seek the reduction of the current lockage fees on the Welland Canal effective the start of the 1996 shipping season; (3) continue to work closely with the Seaway Authority and the Canadian Parliament on ways of improving the competitiveness of the binational waterway; (4) seek the establishment of an incentive program for the building and retrofitting of Seaway-size vessels; (5) continue to support the DOT proposal to separate the Seaway Corporation from the Department and maintain the agency as an independent government corporation, thus eliminating the issue of privatization; and (6) work jointly with the Seaway Authority to eliminate any duplication of operational activities, such as buoy deployment and GPS vessel tracking management.

June 14-15, 1995: The Corporation hosted a delegation from the Panama Canal Commission at its operations facilities in Massena, New York, to discuss issues facing the two international waterways. Results/Benefits: Leaders from the two waterways exchanged ideas on lock operation, emergency preparedness, and vessel traffic control using Global Positioning System (GPS) technologies.

July 6, 1995: The Corporation hosted an export steel marketing meeting in Chicago, Illinois. Results/Benefits: Sixteen Great Lakes/Seaway steel, port, trade, and other maritime executives participated to discuss the increase in the Seaway's steel movements over the previous few years and the potential for increasing the Seaway's share of export steel movements. Many executives commented that the Seaway will begin to see significant export movements of steel during the 1995 navigation season.

August 22, 1995: The Corporation co-hosted, with Franklin County, N.Y. Office of Emergency Preparedness, the fifth annual emergency response exercise along the St. Lawrence River in Hogansburg, New York, on August 22. Results/Benefits: More than 20 U.S. and Canadian local, state, federal, and provincial agencies participated in the event that simulated a tanker vessel striking a bridge along the Seaway and spilling approximately 10,000 gallons of Bunker C oil. The simulations allow all emergency and rescue agencies to prepare for any type of vessel incident or spill along the St. Lawrence Seaway.

March 6-7, 1996: The Corporation hosted a two-day meeting with Great Lakes/Seaway industry officials in Annapolis, Maryland, to discuss ways of improving commercial trade. Results/Benefits: Several members of the Seaway maritime community, including port directors, industry officials, and labor representatives, attended the meeting to exchange ideas on how the Corporation and executives in the Midwest region can increase commercial traffic through the Seaway System.

March 14, 1996: The Corporation co-hosted, with the Canadian Seaway Authority (SLSA) the annual Maritime Industry Day meeting in Montreal, Quebec. Results/Benefits: Exchange of information among the Seaway entities with the U.S. and Canadian Coast

Guards, pilots, vessel agents, and operators on the 1995 navigation season, and prospects for the 1996 season. Also, the two agencies presented the findings of its Exit Survey gathered during the 1995 season.

March 26, 1996: The Corporation co-hosted a meeting with all U.S. and Canadian vessel traffic controllers in Cornwall, Ontario, to discuss issues facing controllers during the 1996 navigation season. Results/Benefits: The purpose of the meeting was to discuss the results of the 1995 Exit Survey that directly affect vessel traffic control, namely to improve the quality of radio communications and to develop a uniform system for dispensing information.

April 18, 1996: The Corporation hosted an industry marketing meeting in Chicago, Illinois, to review the Spring Seaway Trade Mission to Europe, preview the Corporation's upcoming marketing activities, discuss the current Seaway grain market outlook, and unveil the Corporation's new vessel fleet analysis. Results/Benefits: Twenty-four Great Lakes maritime executives attended the meeting and were able to exchange ideas and suggestions with Corporation senior staff on ways of increasing Seaway trade.

May 29, 1996, and May 31, 1996: The Corporation and SLSA co-hosted two programs in London, England, and Athens, Greece, for the international shipping community. Results/Benefits: At each of the programs, more than 75 shipping executives attended to listen about the regulatory changes that have been made on the Seaway System to attract a greater number of the world's commercial shipping fleet. Many attendees were unaware of the changes and have since made inquiries about using the Seaway System for waterborne movements to and from North America.

June 19, 1996: The Corporation and SLSA co-hosted a "Seaway Summit" meeting in Chicago, Illinois. Results/Benefits: Discussion, review, and recommendations from industry representatives on the Seaway's 1995 Exit Survey, the Corporation's "State of the Seaway Sailing Fleet" analysis, the potential impact of an increase to the waterway's maximum sailing draft, and the future changes in eastbound grain traffic.

BUDGET DATA

Question. Please update the table on pages 532-533 of Senate hearing record 104-76, part 3, regarding executed and planned replacement and improvement projects, for fiscal years 1995, 1996 and 1997.

Answer. Replacement and Improvement Projects are provided below:

Capital Projects

Fiscal Year 1995

Water Plant Improvements	$ 46,000
Improve Vessel Traffic Control Center	6,000
Paving and Drainage Improvements	165,000
Electrical Equipment Upgrade	77,000
Replace Close Circuit Television Equipment	19,000
Global Positioning System Applications	69,000
Upgrade Road Salt Storage Site	56,000
Upgrade Marine Base/Shop Facility	22,000
Install Security System - Maintenance	35,000
Install Security System - Administration	8,000
Upgrade Fendering at Snug Harbor	20,000
Total	$ 523,000

Fiscal Year 1996

Paving and Drainage Improvements	$ 6,000
Electronic Lock Equipment	50,000
GPS - Vessel Traffic Services System	500,000
Bailey Bridge Modifications	52,000
Road Salt Storage Building	45,000
Security Upgrade	15,000
Electrical Lock Equipment Upgrade	67,000
Safety Improvements	10,000
Total	$ 745,000

Fiscal Year 1997

Upgrade Stiffleg Derricks	$ 770,000
Improve VTC Center Facility	40,000
Paving and Drainage Improvements	100,000
Upgrade Electronic Lock Equipment	25,000
GPS-Based Vessel Traffic Services System	100,000
VTC Telecommunication System Upgrade	40,000
Upgrade Mechanical Lock Equipment	35,000
Improve Fendering Systems	45,000
Safety and Environmental Improvements	20,000
Total	$1,175,000

Question. Please update the table on page 533 of last year's hearing record concerning planned equipment purchases, for fiscal years 1995, 1996, 1997.

Answer. The requested information follows.

Capital Equipment

Fiscal Year 1995

Trucks	$ 69,000
Emergency Response Equipment	7,000
Welder	8,000
Office and Computer Equipment	10,000
Forklifts	57,000
Total	$151,000

Fiscal Year 1996
Deferred due to funding restraints.

Fiscal Year 1997

Office and Computer Equipment	$ 10,000
Light Trucks	20,000
Heavy/Special Purpose Trucks	65,000
Total	$ 95,000

Question. Please also provide an update to the information on pages 534 through 538 of last year's hearing record regarding contracts and proposed contracts in fiscal year 1995 through those proposed for fiscal year 1997. Please include a total line after the listing of contracts and their amounts.

OUTSIDE CONTRACTS & PROPOSED CONTRACTS FOR
FY '95, '96 & '97

FY'95

91-A-C1027 Active	U.S. DOT/RSPA/Volpe Center Cambridge, MA	$ 50,000	Addendum #2-GPS Vessel Traffic Control System
91-A-C0898 & Active	U.S. Department of Commerce NOAA/NDBC Stennis Space Center, MI	$ 65,000	Weather System Operation Maintenance
92-D-C1143 Active	Blue Cross-Blue Shield of CNY Syracuse, NY	$ 45,000	Mod. #0003-Dental Coverage CY95 NTE $156,000
94-C-C0828 Complete	Urbach, Kahn & Werlin, PC Albany, NY	$ 36,400	Conduct Financial Audit for 10/01/93 thru 09/30/94.
95-C-C0204 Completed	Tisdel Associates Canton, NY	$ 9,000	Lock Dewatering Study
94-D-C0531 Completed	Harbor House Publishers Boyne City, MI	$ 11,312	Seaway Review, Vol. 23, Edition 3.
94-D-C0531 Completed	Harbor House Publishers Boyne City, MI	$ 10,363	Seaway Review, Vol. 23, Edition 4.
95-D-C0512 Completed	Harbor House Publishers Boyne City, MI	$ 45,330	Seaway Review, Vol. 24, Edition 1-4.

95-P-P0656 Completed	Donnelly Construction, Inc. Mechanicville, NY	$ 17,940	Clean, Fill & Seal Joints/Cracks in Corporation Roads & Parking Areas.
		$ 12,880	Modification #0001 Increase to New NTE $30,820.
95-C-C0674 Active	Brown & Company Arlington, VA	$ 31,900	Financial Compliance Audit under the CFO Act. For 10/01/94-09/30/95.
95-C-C0700 Active	Luck Brothers, Inc. Plattsburgh, NY	$ 112,080	Asphalt Pave Corp. Roadways/Parking Areas.
95-C-C0718 Completed	Goodfellow, Inc. Delson, Quebec, Canada	$ 126,388	Furnish & Deliver EKKI Timbers
95-P-P0878 Active	Luck Brothers, Inc. Plattsburgh, Ny	$ 45,180	Asphalt Pave Corp. Roadways/Parking Areas.
	FY'96		
91-A-C0898 Active	U.S. Department of Commerce NOAA/NDBC Stennis Space Center, MI	$ 30,000	Addendum #4, Weather System Operation & Maintenance
95-P-P0656 Completed	Donnelly Construction, Inc. Mechanicville, NY	$ 27,937	Modification #0002 Increase to Clean, Fill, and Seal Cracks/Joints in Corp. Roadways. New NTE $58,757

95-C-C0631 Active	Blue Cross-Blue Shield of Central New York Syracuse, NY.	$ 34,642	Dental Insurance for Approx. 85 Corp. Employees for CY 1996.
95-C-C0674 Active	Brown & Company Arlington, VA	$ 31,900	Modification #0001, Exercise Option #1 to Conduct Financial Compliance Audit under the CFO Act for 10/01/95-09/30/96. New NTE $63,800.

PROPOSED CONTRACTS FOR FISCAL YEAR 1996

Drydock Buoy Barge (Est. $125,000)

Global Positioning System - Vessel Traffic Services System (Est. $500,000)

PROPOSED CONTRACTS FOR FISCAL YEAR 1997

Weather System Operation and Maintenance (Est. $30,000)

Heavy/Special Purpose Trucks (Est. $65,000)

Upgrade Stiffleg Derricks (4) (Est. $770,000)

Paving and Drainage Improvements (Est. $100,000)

GPS-Based Vessel Traffic Services System (Est. $100,000)

Vessel Traffic Control Telecommunications System Upgrade (Est. $35,000)

Fendering Systems Improvements (Est. $40,000)

Conduct Financial Audit under the CFO Act for 10/01/95-09/30/96 (Est. $31,900)

Dental Insurance for Approx. 85 Corp. Employees for CY 1997 (Est. $35,000)

Repair Control House Roofs (Est. $40,000)

Stabilize Tunnel Wing Walls (Est. $30,000)

Repair Navigational Aid Structures (Est. $25,000)

Administration Building Heating System Repair (Est. $50,000)

FISCAL YEAR 1997 BUDGET REQUEST

Question. The Seaway Corporation's proposed FY 1997 program level is $12,135,000, of which $10,065,000 would be funded by an appropriation from the Harbor Maintenance Trust Fund, $900,000 from offsetting collections, and $1,170,000 from the Corporation's financial reserve. How was the split between appropriated trust funds, financial reserve funds, and offsetting collections determined? Are funds from a specific source (i.e., financial reserves) earmarked for a specific expense (i.e., facilities maintenance and improvement)?

Answer. The Water Resources Development Act states that 100 percent of the eligible operations and maintenance costs of the Corporation are authorized to be appropriated from the Harbor Maintenance Trust Fund. Therefore, the Corporation's appropriation request is based on estimated operating expenses. Projected offsetting collections from non-federal sources and financial reserve funds become part of the program level when our requested appropriation does not meet our funding requirements. In fiscal year 1997, the financial reserve funding level is to meet our capital needs. Offsetting collections from non-federal sources will be used to fund operating expenses not covered by our appropriation.

Question. Page 7 of the Seaway Corporation's fiscal year 1997 budget justification compares the fiscal year 1996 estimated levels to fiscal year 1997 requested level for budget line items broken out by object classification. Please prepare a table similar to that on page 7 of the budget justification that compares FY 1996 estimate; FY 1997 request to OMB; and FY 1997 estimate (OMB passback).

Answer. The information follows.

Object Classification
(in thousands of dollars)

	1996 Estimate	1997 Request	1997 Passback
Personnel Compensation:			
Full-time permanent.......	6,650	6,650	6,850
Other than full-time perm.	183	165	187
Other personnel comp......	385	399	397
Total personnel comp.......	7,218	7,214	7,434
Civilian personnel benefits	1,761	1,692	1,773
Travel and Transportation of persons................	158	199	151
Transportation of things...	8	10	9
Communications, utilities			

and misc charges..........	271	279	250
Printing and reproduction..	35	62	35
Advisory and assistance....	...	50	...
Other services.............	325	346	284
Purchase of goods and services from Government accounts..	195	295	197
Operations and maintenance of facilities.............	89	186	153
Operations and maintenance of equipment..............	183	95	78
Supplies and materials.....	742	675	664
Equipment..................	635	230	230
Land and structures........	5	877	877
Total Obligations.....	11,625	12,210	12,135

Question. The fiscal year 1997 budget estimate for other services decreases 12 percent below the enacted FY 1996 level, from $325,000 to $284,000. What activities are included within this budget line item? What services will the Corporation curtail or forego in fiscal year 1997 because of this $41,000 decrease?

Answer. The Corporation's fiscal year 1997 request of $284,000 for other services consists of estimated costs for marketing, tolls and statistics services provided by The St. Lawrence Seaway Authority of Canada, training, hazardous waste and trash removal, financial and pilotage audits, maintenance of power lines, payments in-lieu-of taxes, and other miscellaneous services. In fiscal year 1997, reductions are projected to estimated costs of the tolls and statistics services provided by The St. Lawrence Seaway Authority and the pilotage audit, as well as other miscellaneous services to achieve this $41,000 decrease.

Question. The fiscal year 1997 budget estimate for operations and maintenance of facilities increases 71 percent above the enacted FY 1996 level from $89,000 to $153,000. Please describe and cost allocate the completed and ongoing activities for fiscal year 1996, and provide the same breakout for planned activities in 1997.

Answer. Fiscal year 1996 costs for operation and maintenance of facilities consists of paving, repairing the radio station at Sodus Point, NY, services to the Corporation's administration building, and other miscellaneous maintenance agreements.

The major increase in the fiscal year 1997 request is a result of projects to repair lock control house roofs, stabilize the Eisenhower Lock tunnel wingwalls, repair navigational aid structures, and perform additional maintenance at the Administration Building. The overall increase is offset by a paving project budgeted only in fiscal year 1996, as well as other miscellaneous reductions.

Operations and Maintenance fluctuates between equipment and facilities based on priority of needed repairs in that particular fiscal year.

Question. The fiscal year 1997 budget estimate for operations and maintenance of equipment decreases 57 percent below the enacted FY 1996 level, from $183,000 to $78,000. Why is there such a steep decrease in this area? Are any planned equipment operations and maintenance activities being deferred?

Answer. The fiscal year 1997 decrease in the Corporation's operations and maintenance of equipment request resulted from an atypical project of drydocking and repairing the buoy barge budgeted in the fiscal year 1996 request for $125,000. The large decrease is partially offset by slight increases in other equipment operations and maintenance budgeted in fiscal year 1997.

Question. The fiscal year 1997 budget estimate for equipment decreases 64 percent below the enacted FY 1996 level from $635,000 to $230,000. Why is there such a steep decrease in this area?

Answer. The Corporation's steep decrease in the fiscal year 1997 budget estimate largely results from a $400,000 reduction to the GPS-Based Vessel Traffic Services System funding.

PERFORMANCE BASED ORGANIZATION (PBO) INITIATIVE

Question. Please provide a copy of the administration's proposed legislation to establish the Saint Lawrence Seaway Development Corporation as a performance based organization. Include a section-by-section analysis of the legislation.

Answer. The documents are in the final stages of the interagency clearance process and should be transmitted to the committee shortly.

Question. Please provide specific examples of Departmental constraints from which a PBO framework would free the Corporation.

Answer. The SLSDC will maintain its tie to the Department, but to accomplish its goals and objectives, the SLSDC will operate within a framework that provides independence from a variety of Department constraints. The Corporation as a PBO will be allowed to streamline its own organization, personnel, and procurement rules. It will have authority to conduct routine negotiations directly with the Canadian Seaway Authority regarding Seaway operations. SLSDC officers and employees will not be required to conform to the day-to-day operational requirements of the Department. The Corporation would be free to set its own policies and directives as they relate to operations. It will no longer be required to contribute to certain expenses shared by the operating administrations within the Department.

Question. Please specify the shared DOT operating administration expenses toward which the Corporation currently contributes, which would no longer be required as a performance based organization. Are these Working Capital Fund costs? Please break out the amounts paid for these shared expenses in fiscal years 1994, 1995 and estimated for 1996 and 1997.

Answer. The expenses referred to include both the working capital fund (WCF) and reimbursable agreements (RA) between the Corporation and the Department. For FY 1994 the actual costs were WCF $155,598, RA $18,875; FY 1995 WCF $114,516, RA $19,345; estimated costs for both FY 1996 and FY 1997 are WCF $124,000, RA $21,000.

Question. Please describe how this initiative would affect the employment status of all levels of Seaway Corporation employees, from the Administrator (or CEO) to the clerk/typists, pipefitters and welders -- all management and non-management Corporation employees. Will all employees still be members of the federal government work force? Will they retain the implicit security and benefits of a civil service career?

Answer. The most significant employment status change within the PBO initiative is that the Corporation will be headed by a Chief Executive Officer (CEO) who will be competitively selected for a five year performance contract by the Secretary of Transportation, at the expiration of the current Administrator's term. At the same time of the Administrator's term expiration the current terms of the Advisory Board will expire, and reappointment of the new Board will be by the Secretary of Transportation.

Under the rules in the Office of Personnel Management's PBO personnel template, employees will still be members of the federal work force, they will still receive the same benefits as all other federal workers, and they will still be able to move between the SLSDC and other government agencies.

Question. Has the administration determined what authorizing legislation is necessary to implement the PBO initiative for each of the eight candidate agencies?

Answer. From our limited experience with other agency legislative needs, each PBO candidate's requirements will vary significantly based primarily on financing, proposed changes to existing structure, and implementing legislative needs. Each candidate agency is working together with the National Performance Review, the Office of Management and Budget, and the office of Personnel Management to develop authorizing legislation that is customized to meet its unique needs.

Question. Please delineate how the Corporation's relationship with Congress would be altered by PBO status. Will an annual budget request still be sent to Congress? Will the Corporation be subject to appropriations or oversight hearings? What Congressional reporting requirements will be in force?

Answer. As a PBO, with the currently proposed mandatory annual authorization from the HMTF the SLSDC would not go through the annual appropriation process or hearings with the Congress. The mandatory program would cover the period beginning with FY 1998 through FY 2002. Within five years of enactment of legislation establishing SLSDC as a PBO, the Secretary will report to the Congress on the costs and effectiveness of the Corporation as a PBO, and make recommendations for further legislative changes.

Question. Please describe in detail what the financing plan is for the Corporation as a performance based organization, and provide a point-by-point comparison to existing appropriations procedures.

Answer. Beginning with FY 1998 (the FY 1997 Budget would not be amended), the Seaway would be financed by a mandatory payment from the Harbor Maintenance Trust Fund. The amount of the annual payment would be derived by multiplying the average actual U.S.-international tonnage (in metric tons) moved through the Seaway in the previous five years, by the factor 1.076 adjusted for inflation from 1997 based on the Consumer Price Index for urban wage earners and clerical workers. To calculate the FY 1998 payment, the average tonnage for the period 1992 through 1996 would be multiplied by 1.076. The resulting dollar amount would be adjusted for one year of inflation. The SLSDC would have broad flexibility to use the mandatory payment as well as other resources available to it (interest on the capital reserve balance, miscellaneous revenues, the balance in the capital reserve, if necessary) as the CEO sees fit to meet the performance targets in the performance contract. One objective of the CEO would be to build the capital reserve to an amount sufficient to fund repairs from a possible disaster that would interfere with Seaway operations.

If enacted there is no comparison to existing appropriation procedures. The five year SLSDC/PBO budget would be approved with legislative enactment and the Treasury Department would make the annual budget distribution from the HMTF each fiscal year.

Question. Are any short- or long-term savings anticipated for the Corporation if it changes status to a performance based organization? Please detail in what areas savings could be anticipated, and over what time frame.

Answer. The proposed PBO financial plan includes estimated savings based on elimination of the current awards program, and annual savings based on reductions in personnel and/or programs over the five year period, subject to the concurrence of the PBO organization management.

GLOBAL POSITIONING SYSTEM-BASED VESSEL TRAFFIC SERVICE

Question. Please reproduce the vessel traffic service system procurement and installation timetable and cost schedule for fiscal years 1995, 1996, and 1997 that appears on page 530 of last year's hearing record. Is the project running on time and within the budgeted cost schedule? Where have there been delays, if any?

Answer. As a result of the actions described below the Corporation's VTS project has been put on hold this year (FY1996). It is the Corporation's intention that the future activities of the projects, such as, design/development, procurement of shipboard and control center equipment and installation will not proceed until the cost sharing issue is resolved by the Steering Committee.

Senate Report 104-126 requested the Saint Lawrence Seaway Development Corporation (SLSDC) to prepare a study of possible options for privatizing the procurement and operation of vessel traffic services (VTS) on the American portions of the St. Lawrence Seaway. House Report 104-286 expanded the scope of the Senate study to focus on division of responsibility and cost-sharing issues in the development, procurement, installation, and operation of a Global Positioning System (GPS) vessel traffic services system among the Saint Lawrence Seaway Development Corporation, the St. Lawrence Seaway Authority of Canada, the industry. Draft reports addressing both the privatization and cost sharing issues have been prepared. The Corporation in cooperation with the Canadian Seaway Authority (SLSA) has formed a GPS-Steering Committee to discuss and resolve issues such as operation system requirements, cost sharing, project milestones and installation of the system. The members of the Steering Committee consist of SLSDC, SLSA, U.S. Coast Guard, Canadian Coast Guard, Shipping Federation of Canada (representing ocean vessel operators), Canadian

Shipowners Association (representing Canadian laker fleets) and Lake Carriers' Association (pending). The first meeting is scheduled for the last week of June or the first part of July 1996 in Massena, N.Y.

The Corporation completed the draft VTS System requirements phase of the project in FY1995. Advanced engineering design, procurement and installation phase of the project originally scheduled for FY1996-97 has been postponed as indicated above.

Question. If there are changes in the vessel traffic system milestones schedule, please update the table with the current dates and amounts.

Answer. It is anticipated that the delay of this project could be one or two years pending on the Steering Committee's decision. The estimated project cost has remained at $600,000.

Question. Beyond fiscal year 1997, what are the estimated costs to the Corporation associated with the GPS vessel traffic services system?

Answer. The recurring operation and maintenance cost has been estimated to be $50,000 per year.

Question. Has a GPS Steering Committee been formed? If so, please list the members of the committee and their organization affiliation. Has the steering committee met? If so, when? If not, when will it meet?

Answer. The Steering Committee has been formed and proposed participants will be: SLSDC - Mr. Stephen Hung; SLSA - Mr. Pat Vincelli; U.S. Coast Guard - Commander Ken Prime; Canadian Coast Guard - Mr. Lea Barker; Shipping Federation of Canada - Mr. Ivan Lantz; and Canadian Shipowners Association - Mr. Rejean Lanteigne.

The first meeting will be scheduled during July 1996.

Question. Have any cost-sharing requirements for project costs been determined by the steering committee?

Answer. Not at this time. Any such activity will be established after the committee becomes active.

Question. Have shipboard Automatic Dependent Surveillance units been purchased? How many units are estimated to be necessary for successful deployment of the VTS system? How many units have been purchased? What was the cost per unit, and total spent? Has the Corporation paid for the entire purchase, or are other organizations sharing in these procurement costs?

Answer. As indicated above, no action has been taken in the final design, cost estimate and procurement phase of the shipboard Automatic Dependent Surveillance (ADS) units.

Question. Please describe how the shipboard Automatic Dependent Surveillance units will be utilized. When will the units be tested. When and how will they be distributed to vessels transiting the seaway system? Will a user fee be charged for use of the ADS units?

Answer. Volpe Transportation Systems Center designed, built and successfully tested six prototype ADS unit (at approximately $2500 each) in the St. Lawrence Seaway during 1994-95. When implemented, all commercial vessels transiting through the St. Lawrence Seaway from St. Lambert Lock, Montreal to Welland Canal will be required to carry an ADS unit which will automatically broadcast ship's GPS position at certain intervals to the Seaway Vessel Traffic Control Centers where vessel movements will be monitored and lockage scheduled.

Should U.S. and Canadian Coast Guards participate in this program, ADS units could be installed at the Gulf of St. Lawrence and stay on board throughout the entire journey to the Great Lakes destination ports and return.

The carrier industry, however, envisions ADS could provide the means for ship-to-ship and shore-to-ship communication and is in the process of developing their system requirements which will be discussed in the future Steering Committee meetings.

Question. Has the National Research Council Marine Board study on VTS privatization issues yet been released? If so, please provide a copy of the report's executive summary for the record.

Answer. The National Research Council Marine Board's study on USCG's VTS will not be completed until the end of June 1996.

LOCATION OF SEAWAY OFFICES

Question. Senate report 104-126 directed the Seaway Corporation to prepare a cost analysis for maintaining the two Seaway offices in Massena, NY and Washington, D.C. under different staffing scenarios. In that report, under that assumption of moving the Corporation's Offices of Communications, Development and Logistics, and Marketing to Massena, an increase of $30,000 per year in travel was estimated. Please specify how was this figure derived.

Answer. The $30,000 is a contingency estimate in the report for travel from Massena, N.Y. which has very limited air service in contrast to the D.C. area. Of the ten employees subject to relocation in the study, eight are professionals whose main functions, responsibilities, and customer contacts are focussed in Washington D.C.; New York, N.Y.; the U.S. and Canadian Great Lakes area, particularly Chicago, Ill.; and overseas. The estimate averages $3,750 per staff member or about four trips annually for each. Air travel alone averages $441 higher between Massena to lake port communities (Duluth, Milwaukee, Chicago, Cleveland, Toledo and Detroit) than between the same cities and Washington, D.C. The frequent need to use the Montreal or Ottawa airports to obtain air service also adds to the cost of travel for personal auto use, parking and staff time.

Question. With the current advances in computer network communications and teleconferencing, don't you think that many briefings, meetings and other interpersonal dealings could be handled long distance, rather than requiring travel?

Answer. We agree that greater use of communications in lieu of routine travel should be practiced whenever feasible and appropriate for the activity to be accomplished. For example, we frequently use telephone conference call meetings between D.C. and Massena staffs, which is probably the least cost mechanism available. Teleconferencing is extremely expensive in terms of availability of facilities or for use of other agency equipment. We have obtained estimates of up to $30,000 for individual facility set-up costs or alternatively a cost of $7.20 per minute for use of teleconferencing service centers.

INDEPENDENT RELATED AGENCIES

PREPARED STATEMENT OF THE ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD

ACCESS BOARD

FISCAL YEAR 1997 BUDGET REQUEST

The Access Board is requesting a total of $3,540,000 in budget authority for fiscal year 1997. The amount is a slight increase over our fiscal year 1996 appropriation of $3,500,000. The increase will cover the cost of the Board's scheduled publication of proposed and final rules in the *Federal Register.*

Fiscal years 1995 and 1996 can be characterized as a time of improvement and development for the Board. As we will explain, the Board has invested significant time and resources improving our customer service, rulemaking process, and strategic planning. The Board currently has two advisory committees at work developing a major revision to our Americans with Disabilities Act Accessibility Guidelines (ADAAG) and developing guidelines for recreation play areas. The Board itself is in the process of developing proposed guidelines for State and local government facilities, and proposed guidelines for Federal buildings and facilities. Under new responsibilities with the Telecommunications Act of 1996, we will be developing accessibility guidelines for telecommunications equipment and customer premises equipment.

In fiscal year 1997, we will witness the fruition of our improvement and development efforts. We will have an internal strategic planning process in place. We will publish the proposed guidelines for a complete ADAAG revision, all recreation play areas except outdoor areas, and telecommunications. We plan to publish final guidelines on State and local government facilities, proposed guidelines on Federal facilities and telecommunications equipment. We plan to gear our technical assistance and training program to provide our customers with information on the new guidelines.

IMPROVEMENT PROGRAM

Over the last two years, the Board has devoted significant time and resources improving our infrastructure - the way we manage our programs, and the way we develop our accessibility guidelines. Our actions have, in part, been in response to the Administration's National Performance Review, and in preparation for complying with the Government Performance and Results Act. However, we have viewed these requirements not just as a mandate, but as improvement activities that any entity, whether it is a Federal agency or a private enterprise, ought to be doing if it is to flourish in the challenging economic and political environment of the late 1990's.

We have worked with the Board's primary customers to develop, publish, and use a set of customer service standards. We have initiated a comprehensive review of our accessibility guidelines, and we have started a strategic planning program.

Customer Service Standards

Publishing and using a set of customer service standards is central to our improvement program. Our standards are:

- *We will listen to your concerns and issues with courtesy and understanding. You will receive individual attention and prompt, professional service. We will provide you with quality products, available in a variety of formats.*
- *We will respond to your inquires in a timely and dependable way. We will refer you to other organizations if they can answer your questions more directly or offer additional services.*

- *We will involve you in the development of accessibility guidelines. We will work in partnership with Federal and national standard-setting groups, professional groups, people with disabilities, manufacturers and businesses, and State and local government officials to produce clear and consistent access requirements.*

While we have not been able to survey our customers formally, we have used information from our technical assistance calls, public forums and town meetings, and advisory committees to develop these standards. We have established a system to make it easier for our customers to share their ideas for improving our services, including a customer service telephone line and a customer service coordinator. We will report annually on how well our customers believe we are meeting our standards and what we will do to improve our services.

Regulation Review

As a second phase of our improvement program, the Board is conducting a comprehensive review of the Americans with Disabilities Act Accessibility Guidelines (ADAAG). In order to involve the public at an early stage in the rulemaking, the Board has established an advisory committee to assist in this effort. The Board has also reviewed all of its rulemaking plans with a view toward broadening public participation and building consensus around the rules. Before the Board issues rules, we will ask architects, designers, engineers, building owners and operators, manufacturers, business owners, people with disabilities, local and State government officials, and professional and trade associations about their concerns, including the impact, cost, and practicalities of applying the guidelines. Our experience to date has demonstrated that our rulemaking is improved by enlisting people affected by the rules in the early information gathering stages and forming partnerships with private sector groups and public agencies. We strongly believe that better rules advance us toward our vision of an accessible America for all people.

Strategic Planning

As the third part of our improvement effort, and in anticipation of the GPRA requirements, the Access Board has initiated a strategic planning process. We believe that, to be most effective, we must very clearly envision our future, and make decisions today that allow us to achieve our goals for tomorrow. We view strategic planning as a means of defining priorities, improving organizational performance, and effectively preparing for change before it arrives.

The Board selected a modified version of the strategic planning model, *Applied Strategic Planning*, developed by Leonard D. Goodstein, Timothy M. Nolan, and J. William Pfeiffer, to aid us in the development of our plan. The model uses a sequential nine-step process, with two additional monitoring and application phases which are continuous throughout the process. As suggested by the model, the Board has formed a strategic planning committee. This committee, consisting of Access Board top and mid-level management, technical, clerical, and administrative staff, as well as a Board member, was formalized in late June 1995.

To date, the committee has completed much of the groundwork for strategic planning. The committee has:

- Consulted with major "stakeholders" or customers. Stakeholders are defined as organizations or individuals that have some stake in the work of the agency, including model building code organizations, state building code officials, members of the design and construction industries, and people with disabilities. The Board will continue to solicit input from these stakeholders throughout the strategic planning process.

- Established a system to monitor trends and information that relate to the Access Board's lines of business. This monitoring system uses staff to track and compile data on both the macro and micro level on topics such as legislation, architectural trends, economics, staff satisfaction, and customer service.

- Developed bulletins for education of the staff and Board members on strategic planning and its impact on the agency. This bulletin system will be used throughout the planning process.

During the remainder of fiscal year 1996, the strategic planning process will:

- ☐ Examine and refine our existing mission statement to more accurately reflect present and future goals.

- ☐ Examine the Board's culture and value system to ensure they support our vision, open communications, customer service, and quality products.

- ☐ Complete the central, tri-stage process of strategic business modeling, performance audit, and gap analysis. Here we will develop explicit performance standards for our critical programs, find the gap between current and desired performance, and develop explicit plans to improve or change our lines of business.

- ☐ Develop contingency plans which anticipate changes that could affect the way the Access Board performs its primary functions.

The Board is strongly committed to its strategic planning process. The Board itself has committed to devote a half day at each of its meetings during fiscal year 1996 to the effort. The staff committee has scheduled to meet at least two days each month. We believe the first cycle of strategic planning will take most of fiscal year 1996. The implementation of a strategic plan is a continual process. We look forward to fiscal year 1997 as our first year of implementing our strategic plan. As we have in fiscal year 1995, we will finance the strategic planning efforts through our staff training budget in fiscal years 1996 and 1997. We plan minimal use of a consultant to provide "just-in-time" training as we implement various parts of the strategic planning model. We also will use the inexpensive courses offered by the Office of Personnel Management and the Small Agency Council.

The remainder of this document presents the Board's current plans for fiscal years 1996 and 1997 for our critical programs of guideline development, technical assistance and training, and enforcement of the Architectural Barriers Act. We do not anticipate that our strategic planning effort will change our emphasis on these three mandated programs. Our goal is to improve how we conduct these programs while we improve our customer service.

GUIDELINE DEVELOPMENT

The Board's major program initiative continues to be the development and refinement of the ADAAG. At its May and July 1995 meetings, the Board reviewed the status of all of its ADAAG development efforts. In each area of potential rulemaking, the Board sought to determine if it had sufficient information to proceed with developing guidelines and whether there was a consensus among those directly affected by the guidelines. If formal rulemaking was chosen for a particular area, the Board determined the best way to proceed. The Board's objective was to maximize early public participation. It considered the following methods -- advance notices of proposed rulemaking (ANPRM), public hearings, open meetings, advisory committees, regulatory negotiation, notices of proposed rulemaking (NPRM), interim final rules, final rules, and the option of no rulemaking at this time. The Board developed a plan for the continued ADAAG development that will extend into fiscal year 1998.

ADAAG Revision

As we noted in our explanation of our regulatory reform program, the Board has created an advisory committee to review and make recommendations for updating ADAAG to ensure that it remains consistent with technological developments and changes in model codes and national standards and continues to meet the needs of people with disabilities. Committee members are State and local building code officials, building owners and managers, representatives from the model code organizations, and people with disabilities. The committee will provide advice and recommendations to the Board for changes to existing ADAAG. The committee also has the charge of recommending ways to coordinate the future development of ADAAG and other voluntary consensus standards. The advisory committee plans to meet three times in fiscal year 1996 and will present its final report to the Board in July 1996. The Board is planning to use the report to publish a NPRM in fiscal year 1997.

Children's Facilities

This rulemaking proposes to add a special application section to ADAAG, based on children's dimensions for facilities constructed according to children's dimensions and anthropometrics, such as day care centers; preschool, kindergarten, elementary and other school programs; children's museums; and other children's environments. In February 1993, the Board published an ANPRM. The notice sought comment on general issues, such as the scope of the guidelines and the ages or grades that should be covered. Following an analysis of the comments, the Board approved a NPRM in December 1994. From the public comments and the demand for information on accessibility guidelines for children, we feel there is sufficient consensus to proceed with rulemaking. The Office of Management and Budget approved the NPRM in March 1995. We plan to publish the rule jointly with the Department of Justice, and we are currently awaiting the signature of the Attorney General prior to publication. We plan to publish the NPRM in the spring of 1996, and a final rule late in fiscal year 1996.

Detectable Warnings--Continue Suspension

In April 1994, the Board, the Department of Justice and the Department of Transportation suspended temporarily, until July 26, 1996, the requirements for detectable warnings at curb ramps, hazardous vehicular areas, and reflecting pools. This would allow the three agencies to consider the results of research on this subject and determine whether any changes in the requirements were warranted. In November 1994, the research was completed. It showed that intersections are very complex environments and that blind and visually-impaired travelers use a combination of cues to detect and cross intersections. Although detectable warnings helped these individuals locate and identify curb ramps and provided a useful cue, the research suggested that detectable warnings may be redundant at most intersections. Other technologies could be as effective and less costly.

The temporary suspension will expire in July 1996, and the requirements will go into effect unless action is taken before then. The Board's ADAAG Review Advisory Committee is considering the requirements for detectable warnings within the context of the committee's complete review of existing ADAAG provisions. As noted, the committee will deliver recommendations to the Board on possible changes to ADAAG in July 1996. The Board plans to extend the suspension to provide time for the Board to consider the committee's recommendations regarding detectable warnings in the revision of ADAAG. The Board plans to publish a NPRM in the spring of 1996, and plans to publish a final rule before July 26, 1996, extending the suspension for two years until July 26, 1998.

State and Local Government Facilities

In December 1992, the Board published a NPRM to add four special application sections to ADAAG for the following State and local government facilities covered by title II of the ADA: judicial, legislative, and regulatory facilities; detention and correctional facilities; residential housing; and public rights-of-way. The NPRM also covered miscellaneous provisions that apply to State and local government facilities.

In June 1994, the Board published an interim final rule asking for additional comments. At the July 1995 meeting, the Board noted that there is significant demand for accessibility guidelines for judicial, legislative, and regulatory facilities and detention and correctional facilities. Additionally, the reduction in the scoping requirements from 5 percent to 2 percent for accessible prison cells would provide relief sought by State and local governments. We believe there is sufficient support for the requirements for these facilities to proceed with a final rule. The Board plans to publish the final rule in early fiscal year 1997. The Board will continue its analysis of the sections covering residential housing and public rights-of-way. We will work with the Department of Housing and Urban Development on the provisions for residential housing and with the Department of Transportation's Federal Highway Administration and State and local governments on the public rights-of-way provisions.

Federal Facilities

This rulemaking will revise the accessibility guidelines for federally financed facilities covered by the Architectural Barriers Act to make them more consistent with ADAAG. ADAAG is more complete and, in many instances, mandates a higher degree of accessibility than do the current Uniform Federal Accessibility Standards (UFAS), which have been the applicable standards under the Architectural Barriers Act since 1984. We believe that the Federal government should be held to the same high accessibility requirements that now apply to public accommodations and State and local governments under the Americans with Disabilities Act. Proceeding with rulemaking in this area should also result in making the guidelines reflect existing technology, providing more consistency for end users, minimizing confusion over the applicable requirements, and minimizing differences in access requirements for facilities depending on funding sources.

At its July 1995 meeting, the Board voted to proceed quickly with the revision of the accessibility guidelines for federally financed facilities. We will publish a NPRM that will adopt by reference existing ADAAG and the new sections for judicial, legislative, and regulatory facilities, and detention and correctional facilities. It will propose to eliminate sections which do not apply to Federal facilities and add sections from the current UFAS which are either more stringent or are necessary to comply with provisions of the Architectural Barriers Act. We plan to publish the NPRM early in fiscal year 1997 and the final rule later in fiscal year 1997.

Recreation Facilities and Outdoor Developed Areas

This rulemaking will address recreation facilities including sports facilities, play areas, places of amusement, golf, boating and fishing facilities, and outdoor developed areas. In July 1993, the Board convened a 27-member advisory committee to advise us on issues related to making these areas accessible. In July 1994, the committee presented its report to the Board. In September 1994, the Board published an ANPRM seeking comment on the report. The comment period ended in December 1994. We received over 600 comments on the report and questions we asked in the notice.

At its July 1995 meeting, the Board determined that there was sufficient information to proceed with drafting language for a proposed rule on all or portions of the requirements for sports facilities, places of amusement, golf, and boating and fishing facilities. We may sponsor additional informational meetings on such areas as miniature golf facilities and amusement park ride access where we lack consensus and require additional information. The Board decided to use regulatory negotiation to develop the proposed guidelines for play areas and outdoor developed areas. There is a substantial amount of information about making these types of facilities accessible, and the remaining issues where there is not consensus are well defined.

In March 1996, the Board has established a regulatory negotiation committee for play areas. We plan to receive the committee's report in fiscal year 1997, and will then publish a NPRM covering sports facilities, places of amusement, golf, boating and fishing facilities, and play areas. In fiscal year 1997, the Board plans to establish a regulatory negotiation committee for outdoor developed areas and plans to support at least three meetings of the committee. The Board plans to receive the report from the committee and publish a NPRM in fiscal year 1998.

Water Transportation

This rulemaking would address access to ferries, cruise ships, excursion boats, and other vessels. Our initial ADAAG rulemaking on transit vehicles asked questions on issues related to water transportation. Comments we received confirmed that further study was necessary before access requirements could be developed. In fiscal year 1994, DOT funded a research project to assess the feasibility and impact of providing access to a variety of vessels. This project, which the Board helped sponsor should provide valuable information necessary for rulemaking.

At the July 1995 meeting, the Board determined that it still did not have sufficient information to proceed with rulemaking in this area. Using the information developed from the research, we will conduct an informational meeting in fiscal year 1996 to identify groups with expertise in this area and to determine the scope and complexity of the rulemaking. Depending on the results of the informational meeting, the Board may co-sponsor an advisory committee with DOT to assist in preparing a proposed rule.

Telecommunications Equipment

The Telecommunications Act of 1996 requires the Board to develop accessibility guidelines for telecommunications equipment and customer premises equipment. The Board is to develop these guidelines within eighteen months in conjunction with the Federal Communications Commission (FCC). The Board is currently in the process of establishing an advisory committee composed of people with disabilities, industry representatives, and the FCC. We plan to receive the committee's report in December 1996. In order to meet the 18-month deadline, we will quickly publish a NPRM, and then a final rule by August 8, 1997. Most of the expense of the advisory committee and rulemaking effort will occur during fiscal year 1996. The Board plans to use approximately $30,000 of its fiscal year 1996 budget for research to support the committee. The additional cost to the Board in fiscal year 1997 will be primarily publishing a proposed and final rule in the *Federal Register*.

TECHNICAL ASSISTANCE AND TRAINING

People seeking to understand accessibility requirements want to address their technical questions directly to the Access Board because we developed ADAAG and are the most authoritative source on accessibility issues. Our customers--architects, builders, designers of public transit facilities, and State and local government officials--want reliable, accurate, and timely advice. Many literally are sitting at a drawing table with a design problem talking to us on the telephone. The aim of the Board's technical assistance program is to explain in clear and understandable ways how to apply the accessibility requirements in alteration and new construction projects.

We have developed a comprehensive technical assistance program to respond to our customers' needs. The same staff that develop the accessibility guidelines also provide technical assistance and training. Our program consists of:

Telephone Responses. We have toll-free telephone lines for our customers to call with questions about accessibility requirements. We have the technology to fax documents instantly to a caller and have prepared several technical assistance bulletins to answer frequently asked questions about issues, such as visual alarms, text telephones (also known as TTYs), slip resistant surfaces, how to use ADAAG, detectable warnings, and parking. We respond to about 1,400 phone calls per month.

Written and Faxed Questions. We also encourage our customers to fax their questions to us. We respond within 2 days to approximately 100 written inquiries a month.

Information Packets. In response to calls and written inquires, each month we send out over 1,150 individualized information packets containing approximately 3,150 publications in regular print and 500 in alternate formats (computer disk, large print, audio cassette, and Braille). These packets are made up of copies of our publications and information from the Board's library. We currently maintain about 30 publications on various aspects of accessible design. These range from three-fold pamphlets to lengthy technical reports.

Training. The Board's training program is an integral part of our technical assistance effort. We have provided approximately 60 training sessions each year. We have been reimbursed by training sponsors for most of our travel expenses. Our training curriculum is specifically tailored to the audience and is given by the staff person most knowledgeable about that particular area.

Computer Online. We operate a computer bulletin board which allows our customers to download our publications, including notices published in the *Federal Register*, to make information more widely available in a more timely manner. Our publications are also available on other online networks, including AIA Online, a service of the American Institute of Architects; the Federal Transit Administration Safety Bulletin Board; and the Disability and Business Technical Assistance Center's network.

Photographic Slides. We have an extensive photographic slide collection and overhead slide collection. We also maintain a scripted slide presentation on Access Board programs that can be used for general audiences. In fiscal year 1996, we will organize and catalog our slide collection, making it available to staff on a computer database. We will also explore the cost of digitizing our slide collection and making it available on CD ROM. Additionally, we have developed two video tapes explaining our guidelines.

Table I TECHNICAL ASSISTANCE, DISTRIBUTION OF PUBLICATIONS, AND TRAINING

	FY 92	FY 93	FY 94	FY 95	FY 96*
Technical Assistance Calls	18,811	18,556	16,349	14,858	4742
Information Packets	10,569	12,777	15,756	18,693	4281
ADAAG	32,476	17,022	9,786	8,350	1435
Training Sessions	N/A	59	67	76	12
Training Participants	N/A	4,215	5,580	4,795	615

* FY 96 data is current through February 1996.

Since fiscal year 1991, the Board has responded to 73,316 technical assistance telephone calls and mailed 64,081 packets of information; each packet of information can contain one or more publications. Additionally, we have distributed 76,804 copies of ADAAG and have provided 214 training sessions to 15,205 people (since FY 1993 when we began keeping this data).

The Access Board also trains technical assistance personnel at the 10 regional Disability and Business Technical Assistance Centers (DBTACs) funded by the Department of Education. A staff member is assigned as a liaison to each DBTAC to help respond to questions raised by local businesses and others. Our work with the DBTACs has enabled them to provide more accurate information to their customers. Through these contacts, the Access Board has been able to assist many businesses to understand ADAAG and how they can become accessible to persons with disabilities. During 1995, we extended this service to the Association of ADA Coordinators (AADAC), a nationwide network of professionals with responsibilities under the ADA. Our staff provide training sessions at most AADAC seminars and conferences.

FISCAL YEAR 1996 PROGRAM OBJECTIVES

In fiscal year 1995, we presented our program objectives for fiscal year 1996 with respect to technical assistance and training. The objectives and our progress to date are:

- **We will expand our telephone service to better meet the demand for technical assistance.**

Progress: The most frequent complaint about the Board's technical assistance program has been that our toll-free telephone lines are often busy. An analysis of the calls has revealed that almost 60 percent of the calls are from customers ordering our publications. In September 1995, we installed two additional toll free lines, thus freeing our current lines to receive more technical assistance calls until we have a plan that will change our publications ordering and distribution system.

- **We will setup a subscription service for the ADAAG technical assistance manual.**

Progress: In fiscal year 1994, the Board began development of a technical assistance manual on ADAAG to provide information that illustrates the practical application of the guidelines. This comprehensive manual will interpret ADAAG for use by general and technical audiences. In February 1996, we received a contractor's report making recommendations for the improvement of our publications management, distribution and order fulfillment system. The recommendations included developing a subscription service for the ADAAG technical assistance manual. We are currently analyzing the report and believe a subscription approach is feasible and will enable the Board to recover a substantial portion of the costs of the manual.

- **We will establish a sales and distribution program for other Board publications.**

Progress: As the number of customers requesting our publications has increased, the Board has recognized the need for a more efficient distribution system. Based on the previously mentioned contractor's report, the Board is reviewing our publications management system with specific objectives to:

- Decrease the length of time between placement of a publications order and delivery;
- Collect precise data of the number and types of publications ordered, including to whom they are sent and when;
- Reduce--or recover through sales--the cost of producing and distributing our publications; and
- Efficiently process orders for the sale of bulk copies and single copies of publications.

- **We will develop a training program partnership with new customers, including State and local government organizations.**

Progress: The demand for training exceeds the Board's ability to supply training, given current resources and priorities. By analyzing resources and looking at creative ways to use them, we intend to target our training audiences carefully. We plan more contact with such organizations as the National League of Cities, National Association of Counties, and National Governors' Association. We will form partnerships with these groups and others to provide instruction so that they, in turn, can train their members and constituents, thus expanding public understanding of accessible design.

- **We will increase the use of electronic information dissemination.**

Progress: In August 1995, the Board connected directly to the Internet to make our information resources more widely available. We now maintain a home page on the World Wide Web. Our address is "access-board.gov". We are in the process of making all of the Board's publications, including accessibility guidelines, and any proposed rules available for downloading. To reduce costs for the Internet connection and share limited resources, we have provided services to two other small Federal agencies in our building.

Research

The Board has traditionally funded a small research program. The program has two purposes: to provide analyses and information to support our guideline development, and to support our technical assistance program.

In fiscal year 1995, we have used research funds to address the following projects:

Swimming Pool Access. This research project will examine issues regarding making swimming pools accessible to, and independently useable by, persons with disabilities. It will examine various means by which access into pools can be accomplished and assess their appropriateness, degree of consistency with ADAAG, level of safety, and impact on pool design. The goal of this project is to develop recommendations on the scoping and technical requirements for accessible swimming pools. It will also enable the Board to provide more complete technical assistance to public and private entities on providing accessibility to swimming pools.

Water Transportation. In fiscal year 1994, DOT funded a research project to assess the feasibility and impact of providing access to ferries, cruise ships, excursion boats, and other vessels. The Board has co-sponsored this project with FY 1995 funds. Using information developed from the research project, the Board will conduct an informational meeting in fiscal year 1996 to identify groups with an expertise in vessel access issues and to determine the scope and complexity of potential rulemaking in this area. Depending on the results of the informational meeting, the Board may co-sponsor an advisory committee with DOT to assist in preparing a proposed rule.

Communications Access for Persons with Hearing Impairments. This is a project to develop guidance materials on providing communication access based on recommendations from the Board's Ad Hoc Committee on Communications. The material will be developed for incorporation into the ADAAG technical assistance manual.

ADAAG Training Materials. Two projects were funded. The first is a project to enhance and further catalog the Board's growing slide library. Slides play a key role in the ADAAG training staff provides. In addition, we funded a project to develop a training video on public rights-of-way. Public rights-of-way and the guidelines the Board has proposed in this area remain greatly misunderstood by public. Through greater training efforts on this subject, we hope to further prepare the way for eventual guidelines on public rights-of-way.

Information Needs of Persons with Visual Impairments. The Board had approved a project that would study the information needs of persons with visual impairments in detecting and crossing intersections. A total of $50,000 was budgeted to establish a task force of experts and interested organizations responsible for developing a comprehensive statement of work for further research. Project ACTION, an organization that sponsors disability research, agreed to undertake this project for the Board. The savings from this action enabled the Board to undertake the project on swimming pool access in FY 1995 instead of FY 1996.

For our research program in fiscal year 1996, the Board has solicited the membership of our ADAAG Review Advisory Committee for recommendations on projects to support its work in revising ADAAG. With that information, the Board has established the following list of research priorities for fiscal year 1996.

1. **Anthropometric Research** - Collect data on human factors research and testing with an emphasis on previously unexplored fields and disciplines (e.g., bio-mechanics) in order to reassess existing fundamental ADAAG specifications for space allowances and reach ranges. This project would also identify where further research is needed, explore new computer technologies for human factors research, develop methodologies, and identify appropriate entities to conduct future research. The ANSI A117.1 Committee will consider a partnership on this project.

2. **Interactive Transaction Machines/Audible Cuing and Signage** - Identify and evaluate new and emerging technologies that can be used to make interactive transaction machines, information kiosks, building signage and directories, traffic signals and transportation signage more accessible to people with vision impairments.

3. **Toilet/Bath Rooms and Compartments/Grab Bars** - Data collection on maneuvering in toilet rooms and stalls, approaches to fixtures, and transfer techniques by people who use wheelchairs and who are fully ambulatory and semi-ambulatory. This project will investigate use of grab bars at toilets, showers, and tubs and assess alternate designs and configurations.

4. **Exterior Accessible Routes** - Research to develop qualitative and quantitative measures for "firm" and "stable" in relation to the material, texture, and surfacing of exterior accessible routes.

5. **Assistive Listening Systems** - Research to develop specifications for assistive listening devices.

6. **Exterior Doors** - Conduct research to establish what constitutes an accessible entrance/exit (exterior doors), including automated doors, revolving doors, etc.

7. **Telephones: Electrical Noise Problems** - There are long-term and sometimes very severe problems created for people using the telecoil setting on their hearing aid when compatible pay phones are located too close to high voltage lines, transformers, computers, motors, etc. Placement of the phones of is a factor but interference can emerge even if care is taken with placement decisions. This project would identify solutions to the problem of interference with hearing aids being used on the telecoil setting created by electronic sources in the vicinity of hearing aid compatible pay telephones.

8. **Visual Alarms and Photosensitivity** - Research to assess the impact of visual alarms on people with epilepsy who are photosensitive to determine whether a problem exists with current ADAAG specifications.

9. **Elevators** - Research on car dimensions and reach ranges for control panels.

10. **Control Buttons** - Ascertain appropriate specifications for control buttons, including those used for building security systems.

In fiscal year 1997, we are planning to use research funds to support a national accessibility conference which will be a major part of our technical assistance program that year. The conference will be held as we publish the NPRM for the major revision of ADAAG. As in previous years, we will use research funds for the required regulatory analyses of the proposed and final rules we publish.

FISCAL YEAR 1997 PROGRAM OBJECTIVES

The Access Board's program objectives for fiscal year 1997 with respect to technical assistance and training are as follows:

- We will update our ADAAG technical Assistance manual to reflect changes in the Board's guidelines.
- We will conduct a national training conference on ADAAG.
- We will develop outcome measures to assess the effectiveness of our technical assistance and training program.
- We will improve the ease of operation, appearance and content of our computer bulletin board.

ARCHITECTURAL BARRIERS ACT COMPLIANCE AND ENFORCEMENT

In 1968, Congress passed an accessibility law that applied to federally financed buildings--the Architectural Barriers Act (ABA). With this law, Congress recognized the need for the Federal government to serve as a model of accessibility for the rest of the country. This act has served as the foundation for all subsequent accessibility legislation.

Since its inception in 1973, the Board has been charged with the enforcement of the Architectural Barriers Act to ensure that facilities designed, constructed, altered, or leased with certain Federal funds are accessible to persons with disabilities. The enforcement of this act remains a cornerstone function of the Board.

The Architectural Barriers Act has been in effect for over 25 years, and its message of accessibility is being heard. In fiscal year 1995, we continued our high rate of successful resolutions, with 62 percent of the cases closed because the barriers to accessibility were removed. So far this fiscal year, about 67 percent of the cases have been closed because remedial actions were taken. These figures reflect the effectiveness of the Board's approach to enforcing this act, as well as the growing commitment and awareness of responsible agencies to make their facilities accessible to all people. Because people continue to report to us that they are finding federally funded buildings that are inaccessible, the Board intends to allocate the resources necessary to ensure the continued timely and effective operation of its mandated compliance and enforcement program.

In almost all instances, we resolve complaints amicably, without formal legal proceedings. On rare occasions, however, Board lawyers intercede to persuade responsible entities to take corrective actions in lieu of more formal, legal remedies. While the Board has the authority to obtain a ruling from an administrative law judge, it rarely resorts to this action. Of 2,916 complaints received since we began keeping complaint records, only 10 have resulted in the Board issuing a citation to enforce compliance. The last citation we issued was in 1989.

As Table II illustrates, our complaint caseload, i.e., the number of complaints we investigate, remains level. At the beginning of this fiscal year, we had 110 open cases, compared to 117 at the start of fiscal year 1995. We expect this number to be about 112 in fiscal year 1997.

Table III shows the number of new complaints. These include complaints investigated under the Architectural Barriers Act and also those which were not opened, based on our preliminary inquiries. We project a total of 145 complaints will be received in fiscal year 1996, compared to 135 in fiscal year 1995. Of the 145 complaints, we expect to open 80 new Architectural Barriers Act complaints. In addition, we estimate that we will respond to 65 other written complaints, concerning issues not covered by the Act but potentially covered under other accessibility laws. We refer these cases to the appropriate agencies for action and notify the complainant that we have made the referral. Accordingly, we project receipt of about 145 written complaints in fiscal years 1996 and 1997.

Table II ACTIVE ABA CASES AT BEGINNING OF FISCAL YEAR

FY 93	FY 94	FY 95	FY 96	FY 97 Estimated
138	114	117	110	112

Table III NEW COMPLAINTS RECEIVED

	FY 93	FY 94	FY 95	FY 96 Estimated	FY 97 Estimated
ABA Cases Opened	101	96	80	80	80
Referrals Made*	47	54	55	65	65
Total Complaints Received	**148**	**150**	**135**	**145**	**145**

* Does not include telephone referrals.

FISCAL YEAR 1996 PROGRAM OBJECTIVES

With respect to the Board's Architectural Barriers Act compliance and enforcement activities, the fiscal year 1996 program objectives and progress to date are as follows:

- **We will respond to all new complaints within four business days.**

Progress: Thus far during fiscal year 1996, we have sent acknowledgment letters to our customers or begun an investigation of the issues they raised within an average of 2.6 days. So, while it is our policy to respond to all complaints within four business days, in practice, we do it faster. Customers regularly tell us that they are pleased to hear from a Federal agency so quickly.

- **We will improve our automated complaint systems to provide greater flexibility and speed for meeting varied customer needs.**

Progress: We continue to improve our automated complaint systems by developing and implementing changes to allow for more specific, accurate, and faster tracking of case actions and for reporting more definitive statistical information to the Board, Congress and other audiences. For example, we automated coding for the types of facilities about which complaints are lodged so we can now easily and quickly produce a report that tells us the number and location of complaints about facilities such as airports, subway stations, Federal office buildings, hospitals and medical centers, and monuments and memorials. Similarly, we can produce an automated report on the number of days to respond to new complaints.

- **We will continue to develop other program changes to improve services to complainants.**

Progress: We continue to contact complainants more frequently to provide periodic status updates on their cases. We feel this improves our service to our customers. In addition, we began informal surveys of a limited number of our customers to get feedback on the service we are providing them. Feedback from complainants revealed that they like that: our resolutions require architectural alterations rather than programmatic changes; we are persistent in pursuing cases to a logical conclusion; and we require strict compliance with technical requirements rather than a "close is good enough" approach.

FISCAL YEAR 1997 PROGRAM OBJECTIVES

The Access Board's program objectives for fiscal year 1997 with respect to Architectural Barriers Act compliance and enforcement are as follows:

- We will continue to respond to all new complaints within four business days.
- We will contact our customers more frequently to update them on the status of their complaints.
- We will conduct surveys of a limited number of our complainants to learn how they feel about our handling of their accessibility complaints.
- We will continue to improve our automated complaint systems to provide greater flexibility and speed for meeting various customers' needs, including those of Access Board members and responding agencies and organizations.

COST DISCUSSION

Object Class 11.0 Salary

FY 1996	$1,750,000
FY 1997	$1,864,000

The Board has operated at well below its allotted FTE of 34 for several years. However, with the increase in workload we anticipate, we have started to fill vacant technical positions. The 6.5 percent increase in full time staff salaries reflects bringing the staffing level to 33 FTE. We have used the standard multipliers to calculate salary costs for fiscal years 1996 and 1997. Public Board members are paid at an Executive Level IV rate, and we plan on four days per Board member for each of the six meetings plus 120 hours for additional duties.

Object Class 12.1 Benefits

FY 1996	$430,000
FY 1997	$437,000

We have calculated benefits based on our experience with the benefit packages employees have chosen in the past. We also provide an Employee Assistance Program.

Benefits for public Board members include only the social security allotment from the employer.

Object Class 21.0 Travel

FY 1996	$159,000
FY 1997	$160,000

Most of the Board's travel budget is devoted to the cost of the travel, lodging, meals and incidentals for public Board members to attend the six Board meetings per year. In fiscal year 1996, we also supported the travel of one Board member to attend three ADAAG Review Advisory Committee meetings and subcommittee meetings. We also provided the travel for two members of the ADAAG Review Advisory Committee where their organizations did not have the funds. We anticipate almost the same travel expenses for Board members in fiscal year 1997.

We have been very successful in being reimbursed for our travel to provide training. However, in fiscal year 1997, most of the staff travel will be used to train State and local governments who usually cannot reimburse us for our travel expenses.

Object Class 23.1 Rent

FY 1996	$278,000
FY 1997	$287,000

The Board rents, through the GSA, 7,000 square feet of commercial office space. We are planning rent of $278,000 for fiscal year 1996 with a 3.2 percent increase in fiscal year 1997.

Object Class 23.2 Other Rentals (courier service, postage meters, and postage)

FY 1996	$61,500
FY 1997	$61,000

Our largest expenditure in this category is postage for the 60,000 publications and about 15,000 packets of information we send out to our customers yearly. Also included in this category is $2,000 for an in-town delivery service and the rental of two postage meters.

Object Class 23.28 Telephones

FY 1996	$47,000
FY 1997	$36,000

Our largest expenditure in this category is about $21,000 per year for our FTS lines. We are planning for $7,000 for our toll-free lines, $6,000 for our local calls, and $2,000 for maintenance of our telephone system.

Object Class Code 24 Printing

Federal Register

FY 1996	$90,000
FY 1997	$90,000

Publishing our proposed and final guidelines in the *Federal Register* is a relatively high cost for the Board. Printing in the *Federal Register* costs $375 per page, and the Board's major documents can be 150 pages long. In fiscal year 1996, we will publish two major documents and three shorter notices. In fiscal year 1997, we are also planning to publish six major rules but anticipate sharing the costs with other Federal agencies involved in the rulemaking.

Code of Federal Regulations

FY 1996	$11,000
FY 1997	$11,000

Each of the Board's final guidelines are printed in the Code of Federal Regulations, and the Board is charged for these costs, usually long after the fiscal year ends. Based on our past experience, we are budgeting $11,000 in fiscal years 1996 and 1997.

Publications and Newsletters

FY 1996	$60,000
FY 1997	$55,000

Providing our customers copies of our accessibility guidelines, general publications and newsletters is one of the Board's most important activities. The amount budgeted in fiscal years 1996 and 1997 will allow us to meet the continued high demand for these publications.

Object Class 25.0 Contracts

Research and Technical Assistance

FY 1996	$300,000
FY 1997	$300,000

Contracting for research to assist in our guideline development and to provide tools for technical assistance is crucial to the Board's mission. Consistent with past fiscal years, we are requesting $300,000 in fiscal year 1997.

Department of Education

FY 1996	$10,000
FY 1997	$10,000

The Board contracts with the Department of Education to process our contracts that are over $25,000, usually our research contracts. The Board has investigated developing the capability to process large contracts in-house but concluded that it is not measurably more cost effective.

General Services Administration

FY 1996	$58,000
FY 1997	$58,000

The Board contracts with GSA to provide financial, payroll, and personnel services. The planned amounts have been provided by GSA.

Staff Training

FY 1996	$25,000
FY 1997	$14,000

Our staff training budget has almost exclusively been devoted to our improvement efforts and will continue to be at least for the next two fiscal years. We believe $14,000 for fiscal year 1997 is a minimal amount but the level we could prudently plan for.

Mailing Services

FY 1996	$25,000
FY 1997	$25,000

The Board contracts with the DC-ARC to provide mailing services, as required by the Javits-Wagner-O'Day Act. The quoted price for the contracts in fiscal years 1996 and 1997 is $25.000.

Court Reporter

FY 1996	$25,000
FY 1997	$19,000

The Board contracts with a certified court reporter to provide a transcript of all Board and advisory committee meetings. The charge is about $900 per day, and we are planning for about 20 days of meetings in fiscal year 1997.

Interpreting Services

FY 1996	$25,000
FY 1997	$24,000

It is a strict policy of the Board to provide sign language interpreters at all Board and advisory committee meetings. The amount requested in fiscal year 1997 reflects the planned meetings.

Courier GSA/Federal Express

FY 1996	$3,000
FY 1997	$3,000

As required by the GSA, the Board uses Federal Express to ship letters and packages quickly. Most of our use is to ship Board agenda packages to Board members so they arrive well in advance of meetings.

Equipment Maintenance Contracts

FY 1996	$10,500
FY 1997	$10,000

The Board purchases maintenance contracts for our two Braille printers, copier, and a computer file server that supports a local area network.

Drug Testing

FY 1996	$1,000
FY 1997	$1,000

The Board rides a contract through the Department of Interior to provide services for the mandatory drug testing program.

Miscellaneous

FY 1996	$25,000
FY 1997	$13,000

In fiscal year 1996, funds in the miscellaneous category have been spent on a job accommodation for a public Board member, alterations to increase the accessibility of Board offices, and payments to a personnel agency for a temporary receptionist while we advertised the vacancy. Additionally, the Board has a contract with the Department of Treasury to provide employee health services. We anticipate the same type of expenditures in fiscal year 1997.

Alternate Formats

FY 1996	$30,000
FY 1997	$15,000

It has been the Board's policy since 1990 to ensure our print materials are available in alternate formats. We contract to produce Braille and cassette copies of our larger documents. A single Braille copy of one of our larger sets of guidelines costs about $240, and we consider 50 to be a minimum order. The amounts we have planned for fiscal years 1996 and 1997 reflect our guideline development schedule for these years and our plans to share the cost in fiscal year 1997 with other agencies.

Object Class 26.0 Supplies

Books

FY 1996	$10,000
FY 1997	$6,000

The Board's library is considered to be one of the best libraries of accessible design materials. Every book, article and periodical is maintained in a database so the information is easily accessed. It is used extensively by our staff in developing guidelines and by many architects, engineers, and building code officials. We plan $6,000 per year in periodical subscriptions and new book purchases in fiscal year 1997.

Office Supplies

FY 1996	$30,000
FY 1997	$25,000

It is our experience that the Board uses about $25,000 to $30,000 worth of office supplies each year.

Object Class 31.0 Equipment

FY 1996	$30,000
FY 1997	$16,000

In fiscal year 1996, the Board purchased several computers to connect to internet and up-graded several others. We anticipate lower replacement costs in fiscal year 1997.

In fiscal year 1996, the Board requested an additional $150,000 as a one-time expenditure to purchase a new accounting system. The final 1996 appropriation did not contain the requested funding. The Board is currently reviewing the financial and accounting services offered by other Federal agencies, and is not planning to purchase an independent accounting system.

Attachment A presents our existing and proposed budgets by Object Class.

ATTACHMENT A

ACCESS BOARD
BUDGET FY 1996 AND FY 1997

Object Class	DESCRIPTION	FY1996		FY 1997		PERCENT CHANGE
			Totals		Totals	
11.0	**PERSONNEL**		$1,750,000.00		$1,864,000.00	6.51%
11.1	Full-time staff	$1,550,000.00		$1,659,000.00		
11.3	Part-time staff	$50,000.00		$53,000.00		
11.3	Board Members	$117,000.00		$122,000.00		
11.5	Overtime	$8,000.00		$5,000.00		
	Employee Awards	$25,000.00		$25,000.00		
12.1	**PERSONNEL BENEFITS**		$430,000.00		$437,000.00	1.63%
21.0	**TRAVEL**		$159,000.00		$160,000.00	0.63%
	Board Members	$134,000.00		$139,000.00		
	Board Staff	$25,000.00		$21,000.00		
	ADMINISTRATIVE		$386,500.00		$384,000.00	-0.65%
23.1	Rent (Office Space)	$278,000.00		$287,000.00		
23.22	Courier Service	$2,000.00		$2,000.00		
23.24	Postage Meters	$4,500.00		$2,000.00		
23.25	Postage	$55,000.00		$57,000.00		
23.28	Telephones	$47,000.00		$36,000.00		
24.0	**PRINTING**		$161,000.00		$156,000.00	-3.11%
	Federal Register	$90,000.00		$90,000.00		
	Code of Federal Regulations	$11,000.00		$11,000.00		
	Newsletter/Press	$15,000.00		$13,000.00		
	Publications	$45,000.00		$42,000.00		

Object Class	DESCRIPTION	FY1996	Totals	FY 1997	Totals	PERCENT CHANGE
25.0	**CONTRACTS**		$543,500.00		$492,000.00	-9.48%
	Research	$300,000.00		$300,000.00		
	Dept. of Education	$10,000.00		$10,000.00		
	GSA	$58,000.00		$58,000.00		
	Staff Training	$25,000.00		$14,000.00		
	Mailing Services	$25,000.00		$25,000.00		
	Court Reporter	$25,000.00		$19,000.00		
	Interpreter Services	$25,000.00		$24,000.00		
	Courier,GSA	$3,000.00		$3,000.00		
	Equipment Maintenance	$10,500.00		$10,000.00		
	Drug Testing	$1,000.00		$1,000.00		
	Miscellaneous	$25,000.00		$13,000.00		
	Alternate Formats	$30,000.00		$15,000.00		
	Audits	$6,000.00		$0.00		
26.0	**SUPPLIES**		$40,000.00		$31,000.00	-22.50%
	Library Books	$10,000.00		$6,000.00		
	Office Supplies	$30,000.00		$25,000.00		
31.0	**EQUIPMENT**		$30,000.00		$16,000.00	-46.67%
	TOTAL		**$3,500,000.00**		**$3,540,000.00**	1.14%

QUESTIONS SUBMITTED BY SENATOR HATFIELD

STATUS OF ADA RULEMAKINGS

Question. Please update the schedule of completed and pending ADA accessibility guidelines that have been published or are currently in the process of being developed and published by the Access Board. Include the dates for public comment period, release of guidelines by the Access Board, publication of notice of proposed rulemakings, and promulgation of regulations by the applicable Cabinet Department. (Display this information in a similar fashion to that on pages 558-560 of Senate Hearing 104-76, part 3.)

Answer. The Board has developed its American with Disabilities Act Accessibility Guidelines (ADAAG) through a series of rulemakings. A schedule of completed rulemakings and pending rulemakings follows.

COMPLETED RULEMAKINGS

ADAAG for Buildings and Facilities (Sections 1-9)

Notice of Proposed Rulemaking Published	01/22/91
Public Comment Period Ended	03/25/91
Final Rule Published	07/26/91
Department of Justice Adopted Guidelines	07/26/91

ADAAG initially consisted of nine sections. Sections 1 through 4 contain general sections, scoping provisions, and technical specifications applicable to all types of buildings and facilities. The scoping provisions specify which and how many elements and spaces of a building or facility must be accessible (e.g., parking spaces, entrances, toilet rooms). The technical specifications describe how to design the elements and spaces covered by the scoping provisions so that they are accessible to and usable by individuals with disabilities. Sections 5 through 9 contain additional scoping provisions and technical specifications for the following facilities: restaurants and cafeterias (section 5); medical care facilities (section 6); mercantile establishments (section 7); libraries (section 8); and hotels, motels, and transient lodging (section 9). The Department of Justice (DOJ) adopted ADAAG sections 1 through 9 on July 26, 1991 as the standard for accessible design in its regulations for title III of the ADA.

ADAAG for Transportation Facilities (Section 10) and ADAAG for Transportation Vehicles

Notice of Proposed Rulemaking Published	03/20/91
Public Comment Period Ended	05/20/91
Final Rule Published	09/06/91
Department of Transportation Adopted Guidelines (Sections 1-10 and Transportation Vehicles)	09/06/91

Department of Justice Adopted Guidelines (Section 10)	01/18/94

This rulemaking added section 10 to ADAAG which contains additional scoping provisions and technical specifications for transportation facilities. A separate ADAAG was issued for transportation vehicles which covers the following vehicles and systems: buses and vans, rapid rail vehicles, light rail vehicles, commuter rail cars, intercity rail cars, over-the-road buses, automated guideway transit vehicles, high-speed rail cars, monorails, and trams and similar vehicles. The Department of Transportation (DOT) adopted ADAAG sections 1 through 10 and ADAAG for transportation vehicles on September 6, 1991 as the standard for accessible design in its ADA regulations. The Department of Justice added ADAAG section 10 to its standard on January 18, 1994.

Automated Teller Machines

Public Hearing	05/06/92
Notice of Proposed Rulemaking Published	09/08/92
Public Comment Period Ended	11/08/92
Final Rule Published	07/15/93
Department of Justice Adopted Rule	01/18/94

The Board amended some sections of ADAAG in response to petitions for rulemaking. On July 15, 1993, the Board issued a joint final rule with the Department of Transportation amending the reach range requirements for accessible automated teller machines and fare vending machines. The Department of Justice adopted the amended requirement on January 18, 1994.

PENDING RULEMAKINGS

ADAAG for State and Local Government Facilities (Sections 11-12)

Notice of Proposed Rulemaking Published	12/21/92
Public Hearings	02/22/93 (two hearings); 03/02/93; 03/09/93; 03/15/93
Public Comment Period Ended	03/22/93
Interim Rule Published	06/20/94
Departments of Justice and Transportation Published Notice of Proposed Rulemaking Adopting Guidelines	06/20/94
Public Comment Period Ended	08/19/94

This rulemaking will add two special application sections to ADAAG for certain State and local government facilities covered by title II of the ADA. The two sections are 11 -- Judicial, Legislative, and Regulatory Facilities, and 12 -- Detention and Correctional Facilities. The rule also covers miscellaneous provisions that apply to State and local government facilities. The Board published a notice of proposed rulemaking and conducted five public hearings on the proposed rule. Following an analysis of the comments, the Board published an interim final rule asking for additional comments. A draft final rule for sections 11 and 12 has been circulated to the Board. Provisions regarding accessible residential housing (Section 13) and public rights-of-way (Section 14) were proposed as part of the NPRM and the interim final rule. However, no current rulemaking action is being taken in either of these areas to allow for coordination with voluntary standard setting organizations which have initiatives underway.

ADAAG for Children's Facilities (Section 15)

Advance Notice of Proposed Rulemaking Published	02/03/93
Public Comment Period Ended	06/01/93

This rulemaking proposes to add a special application section to ADAAG for facilities constructed according to children's dimensions and anthropometrics. The Board published an advance notice of proposed rulemaking seeking comment on general issues, such as the scope of the guidelines and the ages or grades that should be covered. Following an analysis of the comments, the Board approved a notice of proposed rulemaking which has been cleared by the Office of Management and Budget. The proposed rule will be published jointly with DOJ, and is currently before the Attorney General for signature.

ADAAG for Recreation Facilities and Outdoor Developed Areas

Notice of Intent to Establish Advisory Committee	02/03/93
Notice Establishing Advisory Committee	06/10/93
Full Committee Meetings	07/15-16/93; 10/23-25/93; 01/28-30/94; 03/18-20/94; 05/20-22/94
Advisory Committee Presented Report to Board	07/13/94
Advance Notice of Proposed Rulemaking Published	09/21/94
Public Comment Period Ended	12/20/94
Notice of Intent to Establish Regulatory Negotiation Committee	12/22/95
Notice Establishing Regulatory Negotiation Committee	02/14/96
Full Committee Meetings	03/05-07/96; 05/08-10/96

This rulemaking will address recreation facilities including, places of amusement, boating and fishing facilities, golf, outdoor developed areas, play facilities, and sports facilities. The Board convened a 27-member advisory committee to make recommendations on issues related to making these areas accessible. The committee met five times between July 1993 and May 1994. After receiving the committee's report, the Board published it as an advance notice of proposed rulemaking. The staff is developing draft proposed guidelines for places of amusement, boating and fishing facilities, golf, and sports facilities based on the recommendations of the advisory committee and public comments received in response to the advance notice of proposed rulemaking. The Board has also established a 19-member regulatory negotiation committee to develop proposed guidelines for play facilities. The proposed guidelines for play facilities will be published along with the other proposed rules for recreation facilities. Another regulatory negotiation committee will be established on access to outdoor developed areas.

ADAAG Review (Sections 1-10)

Notice of Intent to Establish Advisory Committee	04/06/94
Notice Establishing Advisory Committee	09/14/94
Full Committee Meetings	10/24-25/94; 01/26-27/95; 04/26-29/95; 02/26-03/01/96

The Board established an ADAAG Review Advisory Committee to review and make recommendations for updating ADAAG to ensure that it remains consistent with technological developments and changes in model codes and national standards and continues to meet the needs of people with disabilities. The committee will provide advice and recommendations to the Board for changes to sections 1-10 of ADAAG. The 22 member advisory committee has met four times and will meet twice more. The advisory committee is scheduled to finalize its report in September 1996.

Detectable Warnings Suspension

Proposed Rule to Temporarily Suspend the Requirements	07/09/93
Public Comment Period Ended	09/09/93
Final Rule to Temporarily Suspend the Requirements	04/12/94
Proposed Rule to Extend the Temporary Suspension	04/12/96
Public Comment Period Ended	05/13/96

The Board, DOJ and DOT suspended temporarily until July 26, 1996, the requirements for detectable warnings at curb ramps, hazardous vehicular areas, and reflecting pools so that a research project on this subject could be considered in determining whether any changes in the requirements are warranted. The research showed that intersections are complex environments and that blind and visually impaired travelers use a combination of cues to detect and cross intersections. Although detectable warnings helped these individuals locate and identify curb ramps and provided a useful cue, the research suggested that detectable warnings may be redundant at most intersections. Other technologies may be as effective and less costly. The Board's ADAAG Review Advisory Committee is also considering the requirements for detectable warnings within the context of the committee's complete review of ADAAG provisions. Recently, the Board, DOJ and DOT published a proposed rule to extend the temporary suspension until July 26, 1998 to allow the ADAAG revision process to be completed.

ADAAG for Over-the-Road Buses

Information Meeting	10/21/93
Board Approved Notice of Proposed Rulemaking	11/10/93

The ADA requires the Board and DOT to issue guidelines and regulations for access to over-the-road buses. The Board and DOT co-sponsored an information meeting on over-the-road bus issues. Subsequently, the Board approved a proposed rule to amend the ADAAG technical provisions for over-the-road buses to include provisions for wheelchair access and other miscellaneous provisions. DOT is required to develop a proposed rule for providing accessible over-the-road bus service. The Office of Management and Budget has requested that the Board publish its proposed rule when DOT's proposed rule is published.

ADAAG for Water Transportation

Information Meeting	04/15/96

This rulemaking will address access to ferries, cruise ships, excursion boats, and other vessels. The Board's initial ADAAG rulemaking on transit vehicles asked questions on issues related to water transportation. Comments confirmed that further study was necessary before access requirements could be developed. In 1994, DOT funded a research project to assess the feasibility and impact of providing access to a variety of vessels. This project, which the Board co-sponsored, is scheduled for completion in September 1996 and should provide valuable information necessary for rulemaking. The Board and DOT recently held an information meeting with organizations representing people with disabilities and the marine industry to determine the scope and complexity of the rulemaking.

ABA Accessibility Guidelines

Board Resolution	07/12/95

This rulemaking proposes to update the accessibility guidelines for facilities covered by the Architectural Barriers Act (ABA) of 1968. Based on a Board resolution, the staff drafted a proposed rule to update the accessibility guidelines for Federal facilities by adopting by reference ADAAG sections 1-12, eliminating existing sections that do not apply to Federal facilities, and adding sections from the Uniform Federal Accessibility Standards which are either more stringent or are necessary to be consistent with the ABA. A draft proposed rule has been circulated to the Board.

Telecommunications Equipment

Telecommunications Act Signed into Law	02/08/96
Notice of Intent to Establish Advisory Committee	03/28/96
Notice Establishing Advisory Committee	05/24/96

The Telecommunications Act of 1996 requires the Board to issue accessibility guidelines for telecommunications equipment and customer premises equipment by August 8, 1997. The Board is also required to review and update the guidelines periodically. The Board intends to develop these guidelines after receiving recommendations from an advisory committee. The first meeting of the advisory committee is scheduled for June 12-14, 1996. The committee will be expected to present a report with its recommendations to the Board within six months of the committee's first meeting.

DETECTABLE WARNINGS

Question. Has a notice of proposed rulemaking yet been published extending the suspension for detectable warnings requirements for another two years (until July 26, 1998)?

Answer. Yes. The notice was published in the Federal Register on April 12, 1996.

PLAY AREAS AND OUTDOOR DEVELOPED AREAS

Question. For both play areas and outdoor developed areas, on what issues is there substantive disagreement about how to make these types of facilities accessible? Separately for play areas and for outdoor developed areas, detail each area of disagreement and summarize the arguments for each proposed accessibility solution.

Answer. Through the work of the Recreation Access Advisory Committee and public comments on the advanced notice of proposed rulemaking (ANPRM), the Board has identified several issues where there is disagreement in the industry or where all of the affected parties have not been extensively involved in the discussion.

In play areas, the major issues are vertical access to elevated play equipment and the extent to which "accessible" surfacing is required. The extent to which vertical access is provided to elevated play structures and how it should be provided is still unresolved. Issues that will be addressed include access to play composite structures, bridges, slides, and other climbing apparatuses. Access can be provided through the use of ramps, transfer platforms, or land formations. Each means of access, however, has limitations. While ramps may provide access for a larger segment of the population, there is an additional cost to operators. Transfer platforms are generally less expensive, but will not provide access for children who are unable to transfer from their wheelchair. Accessible surfacing needs to be stable, firm, and slip resistant for children with disabilities to successfully traverse within a play facility. Surfacing that has these characteristics can add significant cost to a play facility. Current play area safety guidelines require the ground surface to be "resilient" within a "fall zone" beneath elevated equipment. There is substantial disagreement over specifications for surfacing that is both accessible and resilient.

In outdoor developed areas, the major issues are the extent to which access should be provided in newly constructed outdoor recreation areas such as parks, camping facilities, trails, and picnic areas and the approach used in applying accessibility guidelines in those environments. While outdoor enthusiasts are fearful of "paving the trails," persons with disabilities are asking for a level of access that allows for equal participation in outdoor activities. Two specific areas under debate include running slope and cross slope of accessible routes and trails, and "accessible" surfacing for outdoor areas. The Recreation Access Advisory Committee provided recommendations on how to approach accessibility in outdoor developed areas. Those recommendations were based largely on an approach used by the Department of Agriculture. The approach -- called the Recreation Opportunity Spectrum -- combined concepts of general land development and accessibility. Comments received in response to the Board's ANPRM were generally in favor of the approach. However, some State and local governments and disability groups unfamiliar with the Department of Agriculture's approach expressed concern.

TELECOMMUNICATIONS ACT OF 1996

Question. The Access Board is required by the Telecommunications Act of 1996 to develop accessibility guidelines for telecommunication equipment and customer premises equipment by August 1997 (18 months after enactment). Please list all equipments that are affected by this rulemaking.

Answer. The Act requires the Access Board to develop accessibility guidelines for customer premises equipment and telecommunications equipment. Clearly, telephones are customer premises equipment but the distinction between the traditional telephone and other technologies is rapidly disappearing. For example, commercially available software and hardware can convert a personal computer with a modem into a telephone. Similarly, the division between traditional telecommunications providers and new high-tech service providers is blurring. This uncertainty is one of the primary reasons the Board has chartered a Telecommunications Access Advisory Committee composed of representatives from industry, researchers, service providers and disability groups to help the Board detail the scope of coverage of the guidelines. One of the first items on the committee's agenda will be a delineation of the types of equipment which should be covered.

Question. The Access Board's 1997 budget submission statement stated that the Board plans to use approximately $30,000 of its fiscal year 1996 research budget to support the telecommunications advisory committee. What planned research will be delayed or left undone because of this shift in funds?

Answer. The Board plans to undertake the following research projects in fiscal year 1996: Review of Anthropometric Research; Interactive Transaction Machines; Access to Toilet and Bathing Facilities, and; Exterior Accessible Surfaces. As a result of the research funds made available for the Telecommunications Access Advisory Committee, the scope of the project on exterior accessible surfaces has been limited to fit within the revised budget. This project will develop a test procedure for determining whether an exterior surface is "firm" and "stable" enough for use by people with disabilities, as required by the Board's guidelines. The original project planned to use subject testing of the procedures developed. With the reduction in funds, subject testing has been made an optional task for possible funding in fiscal year 1997.

BUDGET REQUEST ADJUSTMENTS

Question. Four areas of the Access Board's fiscal year 1997 budget estimate show substantial decreases below the fiscal year 1996 enacted level. Under object class 23.28, "Telephones", the fiscal year 1997 estimate is $36,000, an $11,000 (and 23 percent) decrease below the 1996 level. Why does the Board anticipate telephone costs being so much lower in fiscal year 1997 than in fiscal year 1996?

Answer. There are three primary reasons the Board's telephone costs are projected to be lower in fiscal year 1997. First, the Board will recoup approximately $5,000 from sharing the cost of a line with the President's Committee on Employment of People with Disabilities and the National Council on Disability. The major cost of a direct internet connection is the cost of a high speed data transmission telephone line. Each agency will contribute approximately $2,500 toward the cost of the line. Secondly, there has been a reduction in phone usage costs for the pubic members of the Board. We have found that most members have a connection to the internet and are using e-mail to communicate with us. Third, we have experienced a reduction in the number of technical assistance calls we receive. We expect the number of calls to increase again when we publish major revisions to ADAAG in fiscal year 1998.

Question. Under object class 25.0, "Contracts", the amount requested for staff training in fiscal year 1997 is $11,000 less than the 1996 level -- a decrease of 44 percent. Please detail what staff training was performed in fiscal year 1996 (and what staff training is planned for the remainder of this fiscal year). What staff training is planned for fiscal year 1997?

Answer. Most of the Board's training budget during fiscal year 1996 has been devoted to our improvement program. We have provided training to Board and staff members on strategic planning, developing vision and mission statements, and on Board-staff communication and responsibilities. We have also provided the staff with extensive training on team building and team problem solving. We have sent individual staff members to training on Federal personnel procedures, adapting to change, and sessions on using various types of computer software. During the remainder of fiscal year 1996 we plan to continue training on strategic planning, team building, and personnel procedures.

We are reducing our training budget request in fiscal year 1997 for two reasons. First, we will not need the intensive training for our improvement program, Secondly, we are projecting increased costs in other areas, particularly personnel, and have reduced costs in other areas of spending to stay within the Administration's guidelines for our total budget.

Question. Also under object class 25.0, "Contracts", the amount requested for alternate formats is decreased by 50 percent, from $30,000 in fiscal year 1996 to $15,000 in fiscal year 1997. Is this decrease strictly tied to a less voluminous accessibility guidelines publication schedule? Have other agencies been approached about cost sharing for alternative formats? Which agencies, and with what results?

Answer. The reduction in the amount requested in fiscal year 1997 to produce our publications in alternate formats is a reflection of our guideline publication schedule. We have also found that demand for braille versions of our documents is significantly reduced. The most frequently requested alternate format is for documents on computer disk where the cost is minor. We have also improved our in-house capability to produce documents in braille and on audio tape. We have also shared the cost of producing print versions of our guidelines with the Department of Justice, and anticipate this to continue in fiscal year 1997 as we publish joint rules for the ADA.

Question. Under object class 31.0, "Equipment", the fiscal year 1997 requested level is $14,000 less than the enacted 1996 level -- a 47 percent reduction. Please summarize the equipment that was purchased (or will be purchased this fiscal year) with the fiscal year 1996 funding level of $30,000. What equipment purchases do you anticipate in fiscal year 1997 with the requested funding level of $16,000?

Answer. Most of our equipment purchases in fiscal year 1996 have been to upgrade our computer system for our internet connection. We have purchased two high speed computers for our internet server, and have upgraded several 286 computers to 486 or pentium processors. We have also purchased two lap top computers and a LCD Projection Panel for use with our advisory committees and for our ADAAG training program.

By fiscal year 1997, we will have completed our upgrade program and anticipate routine replacement costs.

Question. Is the cost of Internet connection included in the equipment object class? If not, where in the budget is this expense included? Please describe the cost sharing system the Board has developed with two other agencies in your building. Who are the other agencies?

Answer. As we indicated in a previous answer, the primary cost of our internet connection is for a high speed data transmission line. That cost falls under telephone costs. As noted, we are sharing the costs with the President's Committee on Employment of People with Disabilities and the National Council on Disability. They are providing the majority of the funds for the connection, and we are providing service and maintenance with in-house resources.

Question. Please update the Committee on the Access Board's review of financial and accounting services offered by other Federal agencies.

Answer. The Board is investigating the services offered by the National Finance Center in the Department of Agriculture, Financial Management Services in the Department of Treasury, and the Information Resources Management Service in the Department of Commerce. We plan to contract with a provider beginning in fiscal year 1997.

BOARD MEMBERSHIP

Question. Please update the information found on pages 565-567 of Senate Hearing 104-76 part 3, regarding status of terms of members on the Board, including both Federal and public members. Please include each member's attendance record at the Board meetings during the 12-month period between May 1995 and April 1996. Please include a narrative explaining the members' attendance records similar to that in last year's hearing record.

Answer. The requested tables follow.

Access Board Member and Liaison Attendance by Meetings
May 1995 - April 1996

	05/12/95 D.C.	07/12/95 Virginia	09/13/95 Missouri	03/13/96 Virginia
PUBLIC MEMBERS/TERM:				
Patrick D. Cannon 12/03/98	x	x	x	x
John H. Catlin 12/03/97	x	x	x	x
Porfirio C. Diaz, Jr 12/05/95	x		x	
Margaret C. Hager 12/03/96	x	x	x	x
Anne Harding 12/03/96	x	x		x
Chester R. Helms 12/03/98	x	x	x	x
June Isaacson Kailes 12/03/98	x	x		x
S. Craig Kiser 12/03/96	x	x	x	x
P. Jack Powell 12/05/94	x	x	x	x
Donna L. Sorkin 12/03/97	x	x	x	x
Lori L. Vande Zande 12/03/99	x	x	x	x
Pamela Young-Holmes 12/03/97	x		x	x
FEDERAL MEMBERS/LIAISON STAFF:				
DOC: Member				
Liaison	x		x	x
DOD: Member				
Liaison		x		x
ED: Member		x		x
Liaison	x	x	x	x
GSA: Member	x	x		
Liaison	x	x	x	x
HHS: Member				x
Liaison	x			x
HUD: Member				
Liaison	x	x		x
DOI: Member				
Liaison	x			
DOJ: Member		x		
Liaison	x	x	x	x
DOL: Member				x
Liaison	x	x		x
DOT: Member	x			x
Liaison	x	x		x
USPS: Member				
Liaison	x		x	x
VA: Member	x			x
Liaison	x	x		x

The November 15, 1995 Board meeting was cancelled due to the Government shutdown.

The January 10, 1996 Board meeting was cancelled due to the Government closed during a blizzard.

Department of Commerce: The Honorable Raymond G. Kammer, Jr., Acting Chief Financial Officer and Assistant Secretary for Administration, was designated a member in February 1996 and has not attended a meeting. The Honorable Thomas R. Bloom, former Chief Financial Officer and Assistant Secretary for Administration, did not attended any meetings. The staff liaison, Mr. William J. Porter, Jr., Realty Specialist, Office of the Secretary, attended three meetings.

Department of Defense: The Honorable F.Y. Pang, Assistant Secretary of Defense (Force Management Policy), did not attend any meetings. The staff liaison, Ms. Judith Gilliom, Deputy Director for Equal Opportunity Policy (Disability Programs), attended two meetings.

Department of Education: The Honorable Judith E. Heumann, Assistant Secretary for Special Education and Rehabilitative Services, attended two meetings. The staff liaison, Ms. RoseAnn Ashby, Vocational Rehabilitation Program Specialist, Rehabilitation Services Administration, attended four meetings.

General Services Administration: The Honorable Thurman M. Davis, Deputy Administrator, was designated a member in September 1995 and has not attended any meetings. The Honorable Julia M. Stasch, former Deputy Administrator, attended two meetings. The staff liaison, Mr. Anthony Waller, National Program Manager for Accessibility, attended four meetings.

Department of Health and Human Services: The Honorable Harriet S. Rabb, General Counsel, attended one meeting. The staff liaison, Mr. Louis Altarescu, Attorney, attended two meetings.

Department of Housing and Urban Development: The Honorable Elizabeth K. Julian, Acting Assistant Secretary for Policy and Initiatives for Fair Housing and Equal Opportunity, was designated a member in July 1995 and has not attended any meetings. The Honorable Roberta Achtenberg, former Assistant Secretary for Fair Housing and Equal Opportunity, did not attended any meetings. The staff liaison, Ms. Cheryl Kent, Director, Disability Rights Division, attended three meetings.

Department of the Interior: The Honorable Bonnie Cohen, Assistant Secretary for Policy, Management and Budget, has not attended any meetings. The staff liaison, Mr. Melvin C. Fowler, Process Manager, Office for Equal Opportunity, attended one meeting.

Department of Justice: The Honorable Deval L. Patrick, Assistant Attorney General for Civil Rights, attended one meeting. The staff liaison, Ms. Janet L. Blizard, Supervisory Attorney, Disability Rights Section, Civil Rights Division, attended four meetings.

Department of Labor: The Honorable Bernard E. Anderson, Assistant Secretary for Employment Standards, attended one meeting. The staff Liaison, Ms. Diane Smith, Branch Chief, Western Operations, Office of Federal Contract Compliance Programs, attended three meetings.

Department of Transportation: The Honorable Frank E. Kruesi, Assistant Secretary for Transportation Policy, attended two meetings. The staff liaison, Dr. Ira Laster, Senior Program Coordinator, Office of Environment, Energy, and Safety, attended three meetings.

United States Postal Service: The Honorable Rudolph K. Umscheid, Vice President, Facilities, has not attended any meetings. The staff liaison, Mr. Charles Baker, Architectural Barriers Compliance Coordinator, attended three meetings.

Department of Veterans Affairs: The Honorable Eugene A. Brickhouse, Assistant Secretary for Human Resources and Administration, attended two meetings. The staff liaison, Mr. Dennis Hancher, Barrier Free Design, Office of Construction Management, attended three meetings.

CURRENT AND PROJECTED STAFFING LEVELS

Question. What is the current number of full-time employees at the Access Board? Are there currently any part-time employees at the Board? Please update the table below:

Answer.

OFFICE OF...	**Executive Director**	**General Counsel**	**Compliance and Enforcement**	**Technical and Information Services**
FY 96 FTPs (to date)	9	2	5	11
FY 96 part-time positions (to date)	1	1	0	0
TOTAL Staff FY 96 to date	10	3	5	11
Anticipated end of year FY 97 FTPs	9	2	5	14
Anticipated end of year FY 96 part-time positions	1	1	0	0
TOTAL Staff anticipated end of year FY 97	10	3	5	14

TRAVEL COSTS

Question. Please list by city all out-of-town staff travel during fiscal years 1995 and 1996 to date, as found on pages 570-581 of last year's hearing record. Include a brief description of the purpose of the trip, and indicate which trips were training sessions. Please also include columns listing the cost of each staff trip, and, if the trip was a training session, what portion of the associated costs were reimbursed.

Answer.

FISCAL YEAR 1995

NONREIMBURSABLE STAFF TRAVEL						
DATES	**TRAVELER**	**LOCATION**	**PURPOSE**	**COST**	**REIMBUR-SABLE AMOUNT**	**TRAINING Y/N**
10/03/94-10/06/94	Mazz	Nashville, TN	BCMC Meeting	$875.40	N/A	No
10/16/94-10/19/94	Mazz	New Orleans, LA	NCSBCS Conference	$1,096.91	N/A	Yes
11/15/94-11/18/94	Greenwell	Boston, MA	Build Boston	$625.43	N/A	Yes
03/05/95-03/07/95	Mazz	Orlando, FL	Unisex Toilet Meeting	$688.98	N/A	No
03/10/95-03/13/95	Beatty	Denver, CO	Adaptive Ski Summit	$1,001.82	N/A	No
04/02/95-04/05/95	Cannon*	Pittsburgh, PA	APTA Transit Management Conference	$170.00	N/A	Yes
05/18/95-05/18/95	Alperin	Denver, Co	Site Survey for September Board Meeting	$393.65	N/A	No
06/27/95-06/29/95	Murdoch	Minneapolis, MN	GSA Childcare Conference State Code Office BOMA	$604.35	N/A	Yes, 3 Sessions
06/28/95-06/30/95	Greenwell	Philadelphia, PA	ASTM Committee Meeting	$441.17	N/A	No

NONREIMBURSABLE STAFF TRAVEL						
DATES	TRAVELER	LOCATION	PURPOSE	COST	REIMBURSABLE AMOUNT	TRAINING Y/N
06/29/95-06/30/95	Yanchulis	Boston, MA	TDI Convention	$417.59	N/A	Yes, 2 Sessions
09/08/95-09/13/95	Thibault	St. Louis, MO	September 1995 Board Meeting	$481.50	N/A	No
09/10/95-09/14/95	Alperin	St. Louis, MO	September 1995 Board Meeting	$807.05	N/A	No
09/11/95-09/14/95	Brooks	St. Louis, MO	September 1995 Board Meeting	$675.37	N/A	No
09/11/95-09/13/95	Cannon	St. Louis, MO	September 1995 Board Meeting	$901.75	N/A	No
09/11/95-09/13/95	Capozzi	St. Louis, MO	September 1995 Board Meeting	$929.20	N/A	No
09/11/95-09/13/95	Greenwell	St. Louis, MO	September 1995 Board Meeting	$643.50	N/A	No
09/11/95-09/14/95	Raggio	St. Louis, MO	September 1995 Board Meeting	$641.00	N/A	No
09/11/95-09/13/95	Stewart	St. Louis, MO	September 1995 Board Meeting	$529.50	N/A	No
09/11/95-09/13/95	Ola	St. Louis, MO	September 1995 Board Meeting	$547.30	N/A	No
09/11/95-09/14/95	Roffee	St. Louis, MO	September 1995 Board Meeting	$1,123.65	N/A	No

NONREIMBURSABLE STAFF TRAVEL

DATES	TRAVELER	LOCATION	PURPOSE	COST	REIMBUR-SABLE AMOUNT	TRAINING Y/N
09/20/95-09/22/95	Murdoch*	Milwaukee, WI	Bradley Corporation	$54.00	N/A	Yes
09/21/95-09/23/95	Greenwell	Dallas, TX	National Pool & Spa Association	$831.04	N/A	Yes
Total				$14,480.16		

* - Sponsor provided some in-kind support (e.g. R/T Airfare or Lodging)

FISCAL YEAR 1995

REIMBURSABLE STAFF TRAVEL

DATES	TRAVELER	LOCATION	PURPOSE	COST	REIMBURSABLE AMOUNT	TRAINING Y/N
10/01/94-10/08/94	Roffee*	Minneapolis, MN	University Of Minnesota	$323.92	$157.00	Yes
10/04/94-10/09/94	Thibault*	San Diego, CA	Association Of ADA Coordinators	$167.20	$159.00	Yes, 2 Sessions
10/07/94-10/10/94	Greenwell	San Antonio, TX	American Society Of Landscape Architects	$760.55	$500.00	Yes, 2 Sessions
10/25/94-10/31/94	Thibault*	St. Louis, MO	Association Of ADA Coordinators	$127.00	$127.00	Yes

REIMBURSABLE STAFF TRAVEL

DATES	TRAVELER	LOCATION	PURPOSE	COST	REIMBURSABLE AMOUNT	TRAINING Y/N
10/25/94-11/01/94	Beatty*	San Diego, CA	OSHA			Yes
		Honolulu, HI	Hawaii Commission On Persons With Disabilities	$1,354.50	$1,354.50	Yes, 2 Sessions
10/26/94-10/28/94	Roffee* Thibault*	St. Louis, MO	Association Of ADA Coordinators	$98.00	$98.00	Yes, 2 Sessions
			HOK			Yes
11/13/94-11/16/94	Thibault	Oakland, CA Carmel, CA	American Public Works Asssociation	$908.25	$908.25	Yes, 2 Sessions
12/02/94-12/04/94	Capozzi*	Dallas, TX	American Airlines Traveler's With Disabilities Conference	$94.00	$94.00	Yes
12/4/94 - 12/7/94	Greenwell*	San Antonio, TX	National Park Service			Yes, 2 Sessions
12/05/94-12/08/94	Yanchulis*	Olympia, WA	Washington State	$287.65	$287.65	Yes, 2 Sessions
12/07/94-12/09/94	Greenwell*	Phoenix, AZ	Natural Access, Inc.	$202.07	$202.07	Yes
02/06/95-02/09/95	Thibault	Nashville, TN	Earl Swensson Associates	$900.44	$900.44	Yes, 3 Sessions
02/12/95-02/15/95	Cannon	Orange County, CA	Orange County AIA	$235.05	$223.05	Yes

REIMBURSABLE STAFF TRAVEL						
DATES	TRAVELER	LOCATION	PURPOSE	COST	REIMBURSABLE AMOUNT	TRAINING Y/N
03/12/95-03/14/95	Greenwell*	Hilton Head, SC	National Center On Accessibilty	$108.36	$108.36	Yes
03/19/95-03/22/95	Cannon*	Atlanta, GA	Southeast DBTAC	$110.00	$110.00	Yes
04/19/95-04/20/95	Beatty*	Newark, NJ	Elevator Safety Inspectors Association Of NJ	$22.00	$22.00	Yes
04/19/95-04/23/95	Murdoch*	Denver, CO	Access To The Skies Conference	$259.40	$259.40	Yes, 5 Sessions
			BOMA			
			AIA			
			State Code Offices			
			University Of Colorado			
05/01/95-05/02/95	Thibault	Tampa, FL	FHWA Region IV	$430.60	$430.60	Yes
05/18/95-05/21/95	Thibault*	Tucson, AZ	City Of Tucson	$105.60	$105.60	Yes
05/21/95-05/23/95	Greenwell	Virginia Beach, VA	Mid-Eastern Symposium On Therapeutic Recreation	$254.50	$115.00	Yes

REIMBURSABLE STAFF TRAVEL						
DATES	TRAVELER	LOCATION	PURPOSE	COST	REIMBURSABLE AMOUNT	TRAINING Y/N
06/05/95-06/06/95	Beatty*	Hartford, CT	Northeast DBTAC	$45.40	$45.40	Yes
7/12/95-7/14/95	Thibault*	Chicago, IL	ASHTO			Yes
7/17/95-7/19/95	Thibault	San Diego, CA	ASHTO			Yes
8/12/95-8/15/95	Cannon*	Orlando, FL	ASHTO			Yes
08/17/95-08/19/95	Greenwell	Colorado Springs, CO	NRPA Western Service Center	$333.65	$202.19	Yes
8/20/95-8/23/95	Beatty*	Denver, CO	USDA			Yes
09/11/95-09/13/95	Beatty	Vail, CO	National Center On Accessibilty	$536.00	$536.00	Yes, 2 Sessions
09/11/95-09/13/95	Mazz*	Birmingham, AL	Evan Terry Associates	$85.50	$85.50	Yes
09/19/95-09/20/95	Capozzi	Houston, TX	Association Of ADA Coordinators	$407.10	$407.10	Yes
Total				$8,156.74	$7,438.11	

* - Sponsor provided some in-kind support (e.g. R/T Airfare or Lodging)

FISCAL YEAR 1996

NONREIMBURSABLE STAFF TRAVEL

DATES	TRAVELER	LOCATION	PURPOSE	COST	REIMBURS ABLE AMOUNT	TRAINING Y/N
10/13/95-10/13/95	Pecht	Atlanta, GA	National Council On Disability	$543.00	$0.00	No
12/12/95-12/15/95	Beatty*	Silverdale, WA	Naval Facilities Engineering Command			Yes, 2 Sessions
		Whitley Island, WA				
		Seattle, WA	Northwest DBTAC	$63.32	$0.00	Yes
02/07/96-02/11/96	Thibault	New York, NY	Lighthouse For The Blind	$390.00	$0.00	No
03/01/96-03/03/96	Greenwell	Dallas, TX	National Pool & Spa Institute	$684.92	$0.00	No
03/18/96-03/24/96	Cannon	Los Angeles, CA	Technology & Persons With Disabilities Conference	$1,172.76	$0.00	No
04/01/96-04/02/96	Beatty	Greenville, SC	Forum On Accessible Golf	$378.37	$0.00	No
04/15/96-04/16/96	Mazz	Nashville, TN	Single User Toilet Meeting	$589.25	$0.00	No
04/24/96-04/26/96	Brooks	Parkersburg, WV	Meeting with Bureau of Public Debt	$415.26	$0.00	No

NONREIMBURSABLE STAFF TRAVEL

DATES	TRAVELER	LOCATION	PURPOSE	COST	REIMBURS ABLE AMOUNT	TRAINING Y/N
04/24/96-04/26/96	Johnston	Parkersburg, WV	Meeting with Bureau of Public Debt	$324.70	$0.00	No
TOTAL				$4,561.58	$0.00	

* - Sponsor provided some in-kind support (e.g. R/T Airfare or Lodging)

FISCAL YEAR 1996

REIMBURSABLE STAFF TRAVEL

DATES	TRAVELER	LOCATION	PURPOSE	COST	REIMBUR-SABLE AMOUNT	TRAINING Y/N
10/05/95-10/08/95	Greenwell*	San Antonio, TX	National Recreation & Parks Association	$490.34	$250.00	Yes
10/07/95-10/07/95	Capozzi	Cleveland, OH	American Society Of Landscape Architects	$297.50	$297.50	Yes
03/10/96-03/11/96	Greenwell	State College, PA	PA Recreation & Park Society, Inc.	$201.00	$184.00	Yes
03/24/96-03/26/96	Murdoch Mazz	Chicago, IL	Great Lakes DBTAC	$146.00 $79.40	$146.00 $79.40	Yes, 3 Sessions

REIMBURSABLE STAFF TRAVEL						
DATES	**TRAVELER**	**LOCATION**	**PURPOSE**	**COST**	**REIMBUR-SABLE AMOUNT**	**TRAINING Y/N**
03/27/96-03/30/96	Greenwell	San Diego, CA	Asssociation Of ADA Coordinators	$434.50	$434.50	Yes
4/24/96-4/26/96	Thibault*	Phoenix, AZ	AIA Arizona			Yes
TOTAL				$1,648.74	$1,391.40	

* - Sponsor provided some in-kind support (e.g. R/T Airfare or Lodging)

Question. Please provide a separate travel costs table displaying Board Member travel for fiscal years 1995 and 1996 to date (as found on pages 583-584 of last year's hearing record). Include the date and location of travel, a brief description of the trip's purpose, and the Board's costs.

Answer.

FISCAL YEAR 1995

BOARD TRAVEL

DATES	TRAVELER	LOCATION	PURPOSE	COST
10/23/94-10/26/94	Kiser, Elliott, Advisory Committee Members	Washington, DC	October 1994 ADAAG Review Advisory Committee Meeting	$6,265.37
11/14/94-11/17/94	Public Members	Washington, DC	November 1994 Board Meeting	$11,155.50
01/16/95-01/19/95	Public Members	Washington, DC	January 1995 Board Meeting	$8,407.87
01/27/95-02/01/95	Elliott, Advisory Committee Members	Washington, DC	January 1995 ADAAG Review Advisory Committee Meeting	$4,549.26
02/25/95-02/28/95	Kiser, Catlin	Washington, DC	Appropriation Hearing	$2,673.31
03/13/95-03/16/95	Public Members	Washington, DC	March 1995 Board Meeting	$6,301.62
04/09/95-04/10/95	Catlin	Washington, DC	American Institute Of Architects	$417.50
04/25/95-04/29/95	Catlin, Advisory Committee Members	Washington, DC	April 1995 ADAAG Review Advisory Committee Meeting	$3,643.25
05/09/95-05/13/95	Public Members	Washington, DC	May 1995 Board Meeting	$13,469.11
06/04/95-06/07/95	Advisory Committee Members	Washington, DC	June 1995 Communications Subcommittee Meeting	$2,168.85
06/09/95-06/11/95	Holmes	Dallas, TX	SHHH Convention	$675.91

BOARD TRAVEL				
DATES	TRAVELER	LOCATION	PURPOSE	COST
06/18/95-06/21/95	Advisory Committee Members	Washington, DC	June 1995 Accessible Routes Subcommittee Meeting	$1,084.75
06/21/95-06/23/95	Catlin, Cannon, Kiser, Sorkin	Washington, DC	June Visions Workgroup Meeting	$3,263.35
07/10/95-07/13/95	Public Members	Washington, DC	July 1995 Board Meeting	$9,180.71
07/18/95-07/18/95	Catlin	Washington, DC	White House Domestic Policy Conference	$261.50
07/24/95-07/26/95	Catlin	Washington, DC	Anniversary Of ADA Celebration	$581.23
07/24/95-07/26/95	Kiser	Washington, DC	July Strategic Planning Meeting	$1,579.70
07/26/95-07/29/95	Cannon	Washington, DC	Paratransit Summit	$783.50
07/27/95-08/03/95	Advisory Committee Members	Washington, DC	July 1995 Accessible Routes Subcommittee Meeting	$2,711.59
08/23/95-08/23/95	Catlin	Washington, DC	FCC Meeting	$261.50
08/27/95-09/01/95	Advisory Committee Members	Washington, DC	August 1995 Accessible Routes Subcommittee Meeting	$1,271.80
08/29/95-09/01/95	Kiser	Washington, DC	August Strategic Planning Meeting	$2,196.20
09/11/95-09/14/95	Public Members	St. Louis, MO	September 1995 Board Meeting	$9,639.03

BOARD TRAVEL				
DATES	**TRAVELER**	**LOCATION**	**PURPOSE**	**COST**
09/17/95-09/19/95	Kiser	Washington, DC	September Strategic Planning Meeting	$1,816.55
09/27/95-09/30/95	Advisory Committee Members	Washington, DC	September 1995 Accessible Routes Subcommittee Meeting	$969.00
TOTAL				$95,327.96

FISCAL YEAR 1996

BOARD TRAVEL				
DATES	**TRAVELER**	**LOCATION**	**PURPOSE**	**COST**
10/25/95-10/27/95	Kiser	Washington, DC	October 1995 Strategic Planning Meeting	$1,813.70
10/29/95-11/08/95	Catlin, Advisory Committee Members	Washington, DC	November 1995 ADAAG Review Advisory Committee Meeting	$3,882.26
11/12/95-11/14/95	Harding	Washington, DC	November 1995 Board Meeting	$1,341.24
11/27/95-11/29/95	Kiser	Washington, DC	November 1995 Strategic Planning Meeting	$1,800.30
12/11/95-12/13/95	Kiser	Washington, DC	December 1995 Strategic Planning Meeting	$1,817.70
01/06/96-01/10/96	Cannon	Washington, DC	January 1996 Board Meeting	$887.84
01/23/96-01/25/96	Kiser	Washington, DC	January 1996 Strategic Planning Meeting	$1,731.70

BOARD TRAVEL

DATES	TRAVELER	LOCATION	PURPOSE	COST
02/07/96-02/09/96	Public Members	Washington, DC	February 1996 Executive Committee Meeting	$8,943.15
02/21/96-02/23/96	Kiser	Washington, DC	February 1996 Strategic Planning Meeting	$1,723.70
02/25/96-02/27/96	Catlin	Washington, DC	February 1996 ADAAG Review Advisory Committee Meeting	$555.63
02/28/96-03/07/96	Kailes, Committee Members	Washington, DC	March 1996 Regulatory Negotiation Committee Meeting	$1,477.82
03/11/96-03/14/96	Public Members	Washington, DC	March 1996 Board Meeting	$11,453.10
04/10/96-04/12/96	Kiser	Washington, DC	April 11, 1996 Strategic Planning Meeting	$1,802.60
05/07/96-05/10/96	Committee Members	Washington, DC	May 1996 Regulatory Negotiation Committee Meeting	$476.00
TOTAL				$39,706.74

ACCESS BOARD RESEARCH ACTIVITIES

Question. Please list and briefly describe all research projects currently underway or planned for fiscal years 1996 and 1997. Prepare a chart giving milestone time frames for each proposed research project:

-- request for proposal (RFP) process,
-- announcement in the Commerce Business Daily,
-- review of proposals by the Board staff,
-- selection of a contractor.

Answer. The following research projects are to be awarded in fiscal year 1996:

Review of Anthropometric Research: This project will collect data on human factors research and testing with an emphasis on previously unexplored fields and disciplines (e.g., bio-mechanics) in order to reassess existing fundamental ADAAG specifications for space allowances and reach ranges.

Interactive Transaction Machines/Audible Cuing and Signage: This project will identify and evaluate new and emerging technologies that can be used to make interactive transaction machines, information kiosks, building signage and directories, traffic signals and transportation signage more accessible to people with vision impairments.

Access to Toilet and Bathing Facilities: This is a data collection project on maneuvering in toilet rooms and stalls, approaches to fixtures, and transfer techniques by people who use wheelchairs and who are fully ambulatory and semi-ambulatory. This project will investigate the use of grab bars at toilets, showers, and tubs and assess alternate designs and configurations.

Exterior Accessible Surfaces: This project will conduct research to develop qualitative and quantitative measures for "firm" and "stable" in relation to the material, texture, and surfacing of exterior accessible surfaces.

PROJECT	REQUEST FOR PROPOSALS	CBD* NOTICE	OPEN - CLOSE DATES	REVIEW OF PROPOSALS	CONTRACT AWARD
Anthropometric Research	03/18/96	04/21/96	05/01/96-06/17/96	06/19/96	mid-September
Interactive Transaction Machines	03/18/96	04/03/96	04/17/96-05/23/96	05/28/96	mid-September
Toilet & Bathing Facilities	03/18/96	04/03/96	04/17/96-05/23/96	06/03/96	mid-September
Exterior Accessible Surfaces	03/18/96	04/16/96	04/30/96-06/14/96	06/17/96	mid-September

* Commerce Business Daily

The Board has not yet established final funding priorities for fiscal year 1997, however, the projects will be selected largely from a list of priorities that the Technical Programs Committee approved at its March 1996 meeting. The potential projects include:

Assistive Listening Systems. This project would conduct research to develop specifications for assistive listening devices.

Exterior Doors. This project would conduct research to establish what constitutes an accessible entrance/exit (exterior doors), including automated doors and revolving doors.

Telephones: Electrical Noise Problems. There are long-term and sometimes very severe problems created for people using the telecoil setting on their hearing aid when compatible pay phones are located too close to high voltage lines, transformers, computers, and types of motors. Placement of the phones is a factor but interference can emerge even if care were to be taken with placement decisions. This project would identify solutions to the problem of interference with hearing aids being used on the telecoil setting created by electronic sources in the vicinity of hearing aid compatible pay telephones.

Visual Alarms and Photosensitivity. This project would conduct research to assess the impact of visual alarms on people with epilepsy who are photosensitive to determine whether a problem exists with current ADAAG specifications.

Elevators. This project would conduct research on car dimensions and reach ranges for control panels.

Control Buttons. This project will ascertain appropriate specifications for control buttons, including those used for building security systems.

Question. Please list all current outside contracts for research by research project; contractor; and amount of contract. Please include a brief description of each ongoing research project.

Answer. The following are the Board's fiscal year 1995 research and technical assistance projects that are currently in progress:

Swimming Pool Accessibility
Contractor: Indiana University
Budget: $86,175.00
Scheduled Completion: August 1996

This project will examine and assess various means of providing access into swimming pools for people with disabilities, including those who use wheelchairs, so that guidelines and technical guidance in this area can be developed. Tasks include a comprehensive review and analysis of literature on the subject, collection of consumer data through a national survey of people with disabilities, surveys of pool operators and designers, review of products and designs, subject testing, and development of scoping and technical guidelines for pool access to be reviewed by a panel of experts.

Communication Access Guide
Contractor: Virginia Technology Associates
Budget: $14,280.00
Scheduled Completion: June 1996

This project is developing a technical assistance guide for designers and facility operators on ADAAG provisions for communication access. This guide will cover three areas: telephones (TTYs and volume control), assistive listening systems, and visual alarms.

Public Rights-of-Way Videos
Contractor: Girard Video
Budget: $8,360
Scheduled Completion: May 1996

Under this project, two 10-minute videos on public rights-of-way are being developed to help highway and transportation engineers understand important concepts of pedestrian access. One covers considerations for wheelchair access and the other addresses sidewalk issues for people with vision impairments.

Accessibility Slide Organization
Contractor: KRW, Inc.
Budget: $18,379.00
Scheduled Completion: June 1996

This project will develop a computer database and software program for the organization and classification of the Board's collection of slides (over 5,000) which it uses in training on ADAAG. The system will be designed to support future inclusion of slides in a digitized format so that the collection can be viewed from computers.

ADAAG Manual Illustrations and Graphics
Contractors: Paradigm Design Group
Evan Terry Associates
Budget: $25,000 (Paradigm Design)
$24,490 (Evan Terry)
Scheduled Completion: June 1996

Two projects are underway to develop design illustrations for an ADAAG technical assistance manual.

COMMUNICATIONS AND CUSTOMER SERVICE

Question. Please describe the customer survey system referenced on page 2 of the Access Board's Fiscal Year 1997 Budget Request.

Answer. The Board's customer service system receives customer ideas and requests for improving our services. This function includes a dedicated customer service telephone line which is offered as a menu option to everyone who calls the Board. Our customer service coordinator answers this telephone line directly, and either responds immediately, or passes the message to the appropriate staff person for action.

Customer requests and comments received to date have primarily focused on three areas: publications distribution, technical assistance, and our telephone system. As a result of customer requests, we are seeking alternatives to the current publications distribution service to improve efficiency and to provide more timely customer receipt of Board publications. Based on expressed customer needs we have updated our telephone menu to simplify its operating instructions. Our customer service coordinator also responds to information requests which are not clearly linked to routine Board services.

PUBLICATIONS MANAGEMENT SYSTEM

Question. Please summarize the recommendations made in the February 1996 contractor's report on improving the Access Board's publications management, distribution and order fulfillment system.

Answer. The report reviewed the Board's existing system for distributing publications and the potential advantages and disadvantages of contracting out the work to a company that specializes in order fulfillment. Among the advantages of contracting out to an order fulfillment company are efficiencies that can be achieved through greater expertise, better equipment, and use of new technologies. Order fulfillment companies can send out publications within 48 hours of receiving an order. Order fulfillment companies can also process payments by check, money order or credit card; establish and maintain subscription services; and develop and implement marketing plans. Among the disadvantages of contracting out to an order fulfillment company are the loss of direct control and direct communications with customers. The report emphasized the need to establish quality control procedures and carefully select an order fulfillment company that can assure the highest quality of customer service and satisfaction.

Question. Two stated goals for fiscal year 1996 are to implement a subscription service for the ADAAG technical assistance manual, and to establish a sales and distribution program for other Board publications. Will these two programs be in place, up and running by the end of the fiscal year? Please describe, in some detail, how each program will be set up. Will these services be contracted out, or performed in-house? Are interagency or private-public partnerships with other organizations being considered in order to share costs? What are the Access Board's costs to initiate each service?

Answer. The Board is considering contracting out to an order fulfillment company to distribute Board publications, including a subscription service for the ADAAG technical assistance manual. If we decide to contract out to an order fulfillment company, we will have to develop a request for proposals and go through the procurement process. The costs to the Board will be determined based on competitive bids. We would anticipate having the new system in place in early fiscal year 1997. The order fulfillment company would be responsible for receiving orders, processing payments, warehousing and shipping publications, maintaining subscriptions, and developing and implementing a marketing plan. The Board has discussed the possibility of partnershipping with other agencies but they have indicated that they are satisfied with their current systems for distributing publications.

Question. What price schedule has been determined for the ADAAG technical assistance manual subscription service? Does the Board anticipate covering the manual's production costs through subscription revenues?

Answer. The Board expects to base the price of the ADAAG technical assistance manual on the production and distribution costs, and the price of comparable publications sold by other entities. The amount of costs recovered will ultimately depend on the number of copies sold. The manual will be the first publication for which the Board sells individual copies. We do not have any prior sales data to accurately forecast total revenues that we can expect from the manual. The contractor's report highlighted that the price of a publication is a critical variable that directly affects sales. It also pointed out the importance of developing a marketing plan to increase sales of publications. A marketing plan would include establishing budget and sales goals and measuring the ratio of monies generated against the cost of selling (return on investment). The purpose of the marketing program would be to maximize the return on investment to the point where the costs are covered.

Question. Has the Access Board determined which publications will be sold in single copies (rather than being provided free)? What is the Access Board's publication pricing policy under the new sales and distribution program?

Answer. Besides the ADAAG technical assistance manual, the Board has not made any final decisions regarding which publications will be sold and which publications will be provided for free. As a general rule, we intend to charge for our larger publications. We do not believe that it will be economical to charge for publications which are only a few pages. We intend to price our publications competitively and are collecting data on what comparable publications are being sold for by others.

PREPARED STATEMENT OF THE NATIONAL TRANSPORTATION SAFETY BOARD

Good morning Mr. Chairman and Members of the Committee. It is a pleasure to be here today to review the National Transportation Safety Board's (NTSB) activities and fiscal year 1997 budget request.

Before I begin, I would like to thank you and this Committee for your support for the Safety Board and its programs during these challenging budgetary times. As a result of your actions, the Safety Board is able to continue its work at current levels on behalf of the traveling public.

Mr. Chairman, the year since our last appearance has been a busy one for the Safety Board. Along with our accident investigation responsibilities, we completed studies on air tour operations, aviation safety in Alaska, and the air traffic control system; hosted, with the National Aeronautics and Space Administration (NASA), a multimodal fatigue symposium attended by close to 600 people, including participants from 16 countries; published the proceedings of the pipeline excavation damage prevention workshop; and issued 343 safety recommendations in all modes of transportation.

In 1995 the NTSB launched "Go Teams" to 3 aviation, 3 highway, 4 marine, 1 pipeline, and 4 railroad accidents, and adopted 24 major accident reports, studies, or special investigations (9 aviation, 4 highway, 4 marine, 3 hazardous materials/pipeline, and 4 railroad). Over 2,300 accidents in all modes of transportation were investigated by the NTSB in 1995.

Mr. Chairman, the end product of Board investigations are the safety recommendations, culminating in satisfactory action by the recommendation recipients. Over the years, these recommendations have ranged from fire resistant materials and floor-level escape lighting in air carrier aircraft cabins, to child safety seats in automobiles and improved school bus construction standards, to the requirement for the installation of head shields on railroad tank cars and improved cabin safety in railroad passenger cars, to new recreational boating safety and commercial fishing vessel regulations, to the development of one-call notification systems in all 50 States and improved regulations for buried pipelines.

The safety improvements mentioned would not have occurred as soon without the Safety Board providing the impetus. The men and women of the National Transportation Safety Board look with pride upon safety enhancements that statistics show contribute to the United States having one of the safest transportation systems in the world.

Although it would not be feasible to discuss every investigation, adopted report or safety recommendation issued, I would like to share with you some of the NTSB's activities since my last appearance before this Committee.

Most Wanted

As you are aware, to identify those recommendations with the greatest impact on transportation safety, the Safety Board in September 1990 adopted the "Most Wanted" list of transportation issues. To date, nine "Most Wanted" issues have been satisfied and consequently removed from the list. Because of action taken by the Federal Aviation Administration (FAA), two items from the original 1990 "Most Wanted" list were removed in May 1995 -- brake wear limits and performance in transport category aircraft, and structural fatigue testing -- and two more items were removed in May 1996 -- the detection of drugs and alcohol in transportation system personnel, and commuter aircraft safety.

In May 1995, three new areas were added to the "Most Wanted" list and they were:

- Commuter Airline Safety (removed in 1996);
- Aircraft Wake Turbulence Protection; and
- Flight Data Recorder Expanded Parameter Recording.

In May 1996, three items were added to the "Most Wanted" list. They were:

- Pilot Screening;
- Railcar Safety; and
- Highway Vehicle Occupant Safety.

The Board believes these safety issues have the greatest potential to save lives, and they will continue to receive intensive follow-up activity, as noted in many of the accident investigations mentioned in this testimony.

AVIATION

Aviation Statistics

According to the FAA, U.S. commercial air carrier passenger enplanements were up 8.2 percent in 1994, after averaging increases of only 1.5 percent during the preceding 4 years. The commuter airline industry continues to be the fastest growing sector of the aviation community, with passenger traffic increasing by 67 percent during the 1990s. In 1994, the regional/commuter airlines enplaned 53.6 million passengers. One example of why we advocated "one level of safety" for all air carriers, and why we are so pleased with the FAA's recent promulgation of a final rule to implement this, is that by the year 2006, commuter air carriers are expected to carry 115.1 million passengers, a 154.1 percent increase.

Aviation accident data for 1995 show something of a mixed, but improving picture. Overall, the preliminary data showed that 1,040 persons lost their lives last year in 2,211 civil aviation accidents, either in the United States or involving U.S. registered aircraft.

Commuter airline fatalities declined from 25 in 1994 to 9 persons in 1995 -- the lowest level since 1989. It was also the fourth consecutive decline in fatal accident rates. For major scheduled airlines, the number of fatalities declined in 1995 to 166 persons from

264 in 1994. Most of the fatalities occurred in an accident that occurred on December 20, 1995,involving American Airlines outside of Cali, Colombia. After hitting a historic low in 1994 of 1,990 general aviation accidents, there was a rise to 2,066 in 1995, with fatal accidents rising from 402 to 408.

Completed Aviation Investigations

USAir/Charlotte, North Carolina

In April 1995, the Safety Board adopted its report on the July 2, 1994, USAir accident near the Charlotte/Douglas International Airport. The aircraft collided with trees and a private residence, killing 37 passengers and injuring the remaining 20 passengers and crew. Our investigation found that this was a windshear-involved accident -- the first such accident in the United States in almost a decade. The Board determined that the flightcrew continued an approach into severe convective activity that was conducive to a microburst, and that the flight crew failed to recognize a windshear condition in a timely manner. Safety recommendations were adopted on the following issues: standard operating procedures for both air traffic controllers and flightcrews; the dissemination of weather information to flightcrews; and USAir flightcrew training.

Runway Collision/St. Louis, Missouri

In August 1995, the Safety Board adopted the report of the November 22, 1994, runway collision at the St. Louis/Lambert International Airport involving Trans World Airlines flight 427, a DC-9, and a Cessna 441. This accident is the most recent example of why the runway incursion issue is still a "Most Wanted" item. The two individuals on board the Cessna were fatally injured. The Board determined that the installation and utilization of Airport Surface Detection Equipment (ASDE-3), and particularly ASDE-3 enhanced with the Airport Movement Area Safety System (AMASS), could have prevented this accident. Once again, the Board issued safety recommendations regarding the runway incursion issue, including airport markings, signs, and lighting.

American Eagle/Morrisville, North Carolina

In October 1995, the Safety Board adopted the report of the December 13, 1994, American Eagle accident. Flight 3379 crashed on approach to the Raleigh-Durham International Airport, killing 15 of the 20 individuals on board. The Safety Board found that the captain made a series of errors which led to the tragedy. The Board further found that the pilot's performance problems might have been detected by the carrier had better hiring, training, and proficiency check procedures been in place.

"The Board ... recommended that the FAA order airlines to conduct more thorough background checks on pilot applicants, including training records." Mr. Chairman, that is a quote from testimony presented by a former Board Chairman before this Committee on April 6, 1989. The recommendation mentioned in that statement was a result of a Continental Airlines accident at Denver's Stapleton International Airport. What has happened in the intervening seven years? On November 15, 1995, the NTSB once again forwarded safety recommendations to the FAA regarding, among other things, the sharing of pilot information. The Safety Board still believes the sharing of pilot information is of utmost importance, and we urge prompt action.

Air Transport International/Kansas City, Missouri

In August 1995, the Safety Board adopted the report of the accident that occurred February 16, 1995, involving a DC-8 operated by Air Transport International (ATI). The aircraft crashed while attempting a three-engine takeoff at Kansas City, Missouri, to ferry the aircraft to its maintenance base. All three crewmembers on board were killed and the airplane was destroyed. Training and crew fatigue were identified as issues. As you are aware, fatigue in all modes of transportation is a "Most Wanted" issue.

Phoenix Air/Fresno, California

Mr. Chairman, as you will recall, revisions to the Board's authorization expanded our authority to investigate some public use aircraft accidents. The report adopted by the Board in August 1995 regarding the December 14, 1994, Learjet accident in Fresno, California involved a public use aircraft accident.

At the time of the accident, a Learjet, under contract to the U.S. Air Force for target practice involving the California Air National Guard, overflew the runway, touched down in a street, and crashed into a two-story apartment building, killing two people on board the aircraft. The flightcrew had declared an emergency inbound to Fresno Air Terminal due to engine fire indications. The airplane had been modified with electronic equipment to satisfy the mission requirements, and evidence found in the wreckage showed that the electrical power cables for the special mission equipment had not been installed in accordance with specifications. Issues examined in this investigation were: maintenance, inspection and quality assurance; related safety recommendations were issued.

Air Tour Sightseeing Operations

Based on a series of accidents involving air tour aircraft, the Safety Board conducted a special study of air tour operations. Two regional public hearings were held, and federal regulations and FAA certification and oversight were among the issues discussed. In June 1995, the Safety Board issued its report and safety recommendations -- the most important of which is the development of national "air tour" definitions and national air tour standards with local variations, and that all air tour operations be conducted within Part 135 of the Federal Aviation Regulations. This would allow the FAA to establish a data base of air tour operators, making it possible to calculate exposure levels and FAA surveillance requirements.

Aviation Safety in Alaska

Flight operations in Alaska are diverse, and they are responsive to the State's challenging aviation environment and its unique air transportation requirements. Due to the large geographic area and lack of other forms of transportation, aviation is often the only way to traverse much of the State. In 1995, the Safety Board conducted a safety study on aviation safety in Alaska to examine Alaska's current aviation environment and air transportation activities, to identify the associated risk factors and safety deficiencies, and to recommend practical measures for managing the risks to safe flight operations given the reality of Alaska's aviation environment and the potential application of new technologies.

The Safety Board's study focused on the following safety issues:

- The operational pressures on pilots and commercial operators to provide reliable air service in an operating environment and aviation infrastructure that are often inconsistent with these demands;

- The adequacy of weather observing and reporting;

- The adequacy of airport inspections and airport condition reporting;

- The potential effects on safety of current regulations for pilot flight, duty, and rest time applicable to commuter airlines and air taxis in Alaska;

- The adequacy of the current instrument flight rules system and the enhancements needed to reduce the reliance of Alaska's commuter airline and air taxi operations on visual flight rules; and

- The needs of special aviation operations in Alaska.

Safety recommendations were issued to the Federal Aviation Administration, the United States Postal Service, the National Weather Service, and the State of Alaska regarding these issues.

Air Traffic Control (ATC) Equipment Failures

As a result of several ATC equipment outages at en route centers, the Safety Board initiated a special investigation into the FAA's capability to cope with the continued use of current aging ATC equipment until the next generation of equipment becomes available beginning in late 1997. The special investigation focused on the problems that had become visible at the five air route traffic control centers (ARTCCs) with the oldest controller display computer systems.

The Board issued its report in January 1996, concluding that while the en route ATC system is safe and the public should not be unduly alarmed, the equipment failures examined have had a detrimental effect on the efficiency of air traffic movement. Safety recommendations were issued to the FAA regarding: personnel issues, simulator-based training, identification of safety deficiencies, and the need for a program to evaluate suggestions and repair techniques proposed by technicians in the field and to share this information with technicians at other facilities.

On-Going Aviation Investigations

USAir/Pittsburgh, Pennsylvania

The Safety Board is continuing the most complex and expensive aircraft accident investigation in its history, the September 8, 1994, accident involving USAir flight 427 at Pittsburgh, Pennsylvania. As you know, the Boeing 737 aircraft crashed while on approach, killing all 132 people on board. The investigative team, consisting of nearly 100 investigators from the Safety Board and other domestic and foreign organizations, have expended more than 50,000 investigative staff hours in direct support of the investigation. Wake vortex flight tests were conducted involving a Boeing 737 and a 727 in late September, and in December the Board reconvened the public hearing.

The main reason this investigation is so complex and costly is the inadequate number of parameters on the flight data recorder (FDR) aboard flight 427. The absence of data prevented us from knowing the role of some of the airplane's critical flight controls in the accident sequence. In contrast, in other recent major accidents – the ATR-72 accident near Roselawn, Indiana; the Boeing 757 accident involving American Airlines near Buga, Colombia; and the Boeing 757 accident off the coast of the Dominican Republic – information received from newer flight data recorders immediately provided the Board with important information that led us to immediate corrective actions.

American Eagle/Roselawn, Indiana

On October 31, 1994, American Eagle flight 4184, an ATR-72, crashed into a soybean field 3 miles south of Roselawn, Indiana, killing all 68 people on board. In contrast to the Pittsburgh FDR, the FDR on the American Eagle aircraft recorded almost 100 key parameters. Because of the information received from the FDR, within a week of the accident the Safety Board issued recommendations to the FAA to restrict the operation of ATR aircraft in icing conditions until a fix could be developed to counteract the phenomenon the accident aircraft encountered. Last November the Board issued recommendations regarding retention of flow control-related documents.

The investigation of this accident is completed, and French Bureau Enquetes-Accidents will soon be reviewing the Board's draft report, in accordance with ICAO regulations. We expect to complete action on this accident, following the mandated ICAO French review, in June.

Flight Data Recorders

Mr. Chairman, this is my second appearance before your Committee, and the second time I have discussed the importance of enhanced flight data recorders. Aviation accident investigations conducted by the Board will continue to be hampered until the entire airline fleet has been retrofitted with upgraded FDRs. We believe the American people are entitled to every reasonable safety protection, and flight recorders are the best possible witnesses for any accident or incident. That is why we have recommended enhancements in flight recorder technology, and why we have placed this issue on our "Most Wanted" list.

We have passed the time when we can allow airliners carrying hundreds of passengers to be equipped with FDRs recording scarcely more information than we got from foil recorders at the dawn of the jet age. The Board should never again be in the position -- as it was following the United Airlines accident in Colorado Springs -- of not being able to determine the probable cause of an accident because of the absence of data.

Atlantic Southeast Airlines/Carrollton, Georgia

On August 21, 1995, Atlantic Southeast Airlines flight 7529 made an off-airport forced landing near Carrollton, Georgia. The pilot and seven passengers were killed; the remaining 21 occupants survived, most with serious burn injuries. The initial on-scene examination indicated that one of the left engine's propellers separated in flight. On August 25, 1995, the Safety Board issued an urgent safety recommendation calling for immediate inspections of Hamilton Standard propellers on numerous commuter airplanes. The Board also issued two priority recommendations directed at longer term actions by the FAA to improve the safety of those propellers.

American Airlines/Windsor Locks, Connecticut

On November 12, 1995, an American Airlines McDonnell Douglas MD-80 from Chicago, Illinois, struck trees on a ridge line 2.65 miles from the end of runway 15 at Bradley International Airport, Windsor Locks, Connecticut. The airplane then landed safely at the airport. The airplane structure contained debris from trees of up to about 1 1/2 inches in diameter in the landing gear and in both engines. There was leading edge damage on both the wings and the horizontal stabilizers, as well as evidence of a tail strike. The Board's investigation is examining, among other things, pilot instrument procedure approach plate design, and ATC safety equipment.

Commerce Secretary Ron Brown/near Dubrovnik, Croatia

At the request of the U.S. Air Force, the Safety Board is participating in the accident that occurred April 3, 1996, near Dubrovnik, Croatia that killed Commerce Secretary Ron Brown and 32 other people. Our participation is focusing on aircraft performance and airworthiness issues. Although the Air Force rather than the Board will issue the final report, our investigators' factual reports reflecting our participation will be made a part of the overall record of the investigation.

Jessica Dubroff/Cheyenne, Wyoming

On April 11, 1996, at 8:26 a.m. mountain daylight time, a Cessna 177B crashed after takeoff at Cheyenne, Wyoming. The three occupants of the aircraft received fatal injuries.

The flight originated at Half Moon Bay, California, on April 10, 1996, with the stated intent to have Jessica Dubroff, seven years old, be the youngest pilot to make a transcontinental flight. Accompanying Jessica were her father and a flight instructor. Issues being looked into are weather -- the weather at the time of the accident was 5 miles visibility, thunderstorms and light rain, with visibility of 2 3/4 miles at the time of departure -- the gross weight of the airplane, and flight instructor judgment.

Foreign Aviation Investigations

A less known but highly significant part of the Safety Board's activities involves its participation in investigations of incidents and accidents in other countries as the U.S. accredited representative under Annex 13 of the International Civil Aviation Convention of 1944. NTSB participation in international accidents provides a direct benefit to ensuring the safety of U.S. aviation, as well as the safety of airline travelers worldwide, and at times provides an early warning of problems that can be identified and corrected. Below are two examples of the importance of Safety Board participation in international accident investigations.

- April 10, 1995, during a takeoff roll at Cairo, Egypt, an Egypt Air Airbus Industrie A300B4 airplane equipped with General Electric CF6-50C2 engines sustained an uncontained separation of the stage 3 through 9 high pressure compressor (HPC) rotor spool in the No. 1 engine. The crew rejected the takeoff, stopped the airplane on the runway, and ordered an emergency evacuation of the passengers. One passenger sustained a minor injury in the course of exiting the aircraft via the emergency slide.

A small fire along the underside of the HPC in the left engine was reported to the crew by the crew of another aircraft. Post-accident investigation revealed substantial engine damage in the area of the HPC. Numerous pieces of the compressor were scattered along the runway.

On August 25, 1995, the Safety Board issued two urgent safety recommendations to the Federal Aviation Administration regarding the need for revised maintenance programs for inspection procedures of all General Electric Aircraft Engine CF6 operators, and that General Electric CF6-50, -80A, and -80C2 model engines be required to have repeated inspections of all high pressure compressor rotor stage 3 to 9 spools, and that the maximum interval between inspections should be less than 4,000 cycles.

- On September 16, 1995, the right main landing gear of a Delta Air Lines Boeing 767-332ER, collapsed while the airplane was making a right turn during its taxi for takeoff at Hamburg Airport, Hamburg, Germany. The airplane was 5 years and 3 months old and had 3,807 cycles and 25,196 hours. Post-accident examination revealed multiple fractures on the outer cylinder aft trunnion, which had broken into three large sections. Examination by the Safety Board's materials laboratory of two fragments of the outer cylinder aft trunnion revealed that the aft trunnion had multiple fractures and contained six areas of stress corrosion cracking.

On October 27, 1995, the Safety Board issued two urgent safety recommendations to the FAA regarding the inspection of the main landing gear outer cylinder aft trunnion.

The NTSB is also participating is the December 20, 1995, American Airlines accident near Cali, Colombia. Of the 164 people aboard, 160 people died, including at least 62 U.S. citizens. This investigation is being conducted by the Colombian Government under ICAO rules. NTSB staff have been chosen by Columbian investigative officials to lead the investigative activities in human performance, operations, aircraft performance, and air traffic control. The flight data recorder, which recorded approximately 300 parameters, has provided a wealth of information that has been of enormous assistance to the investigative team.

Mr. Chairman, dedicated NTSB investigators endured difficult climatic and geographic conditions over the Christmas holidays to be on-scene at this tragedy. They deserve to be recognized for their selfless dedication to aviation safety.

The most recent foreign accident in which the NTSB is participating is the February 6, 1996, accident involving a Boeing 757 in the Atlantic Ocean near Puerto Plata, Dominican Republic. The flight was a tour group returning to Germany. There were 176 passengers and 9 crew on board the flight; all sustained fatal injuries. The accident airplane was owned and operated by a Turkish air charter company, Birgenair, on behalf of a Dominican airline, Alas Nationales. Although the Dominican Civil Air Authority is in charge, they have requested extensive assistance from the NTSB.

This accident scenario is complicated by a lack of sufficient radar data to track the flight path of the airplane and the deep water location of the wreckage. Such an event, once again points out the importance of multiple parameter flight recorders in the investigation of such accidents.

The Board coordinated with the governments of the Dominican Republic, Germany, and Turkey, as well as the airframe and engine manufacturers, on recovery of the flight recorders. Although we have received contributions from the interested parties and governments, the Board will have to use a portion of it's emergency fund -- probably less than $100,000 -- to help defray the costs of this investigation.

SURFACE TRANSPORTATION

Hazardous Materials

About four billion tons of regulated hazardous materials are shipped each year, with more than 250,000 shipments of hazardous materials entering the U.S. transportation system daily. The issue of railroad hazardous materials tank cars has been of interest to the NTSB for several years and is an item on our "Most Wanted" list. More than 1.52 million carloads of poisons, chemicals, pesticides, and other hazardous materials are transported yearly by railroad, and the potential for disaster is significant.

Tank Car Failure and Release of Arsenic Acid/Chattanooga, Tennessee

In February 1995, the Safety Board adopted the report of the June 6, 1994, release of 3,079 gallons of arsenic acid from a Norfolk Southern tank car at a rail yard in Chattanooga, Tennessee. The arsenic acid entered the storm drain system. Contaminated water from that system was then discharged into Citico Creek, and then into the Tennessee River near intake pipes for the City's municipal water supply. The Tennessee River is the sole source of water for the Chattanooga water system. Repair costs to the tank car were $29,900 and the value of the spilled arsenic acid was $24,630. However, the environmental cleanup and disposal costs were estimated to be $8.77 million. Issues examined were:

- The configuration and construction of eduction pipe systems in tank cars;
- The adequacy of quality control inspections to ensure that tank cars are constructed in accordance with designs and that modifications are performed correctly;
- The evaluation, selection, and inspection of coatings or linings to protect tank cars from corrosive damage by the cargo transported; and

- The adequacy of actions taken in response to the leaking tank car.

Railroad Tank Car Failure/Bogalusa, Louisiana

The Safety Board is investigating an October 1995 tank car failure and release of nitrogen tetroxide in Bogalusa, Louisiana, resulting in the evacuation of over 3,000 people. Nitrogen tetroxide is an oxidizer and a poisonous gas. Our investigation has revealed severe internal corrosion to the tank. Additionally, the investigation has revealed that before the tank car was last filled with cargo, four valves had been replaced. Issues being examined include: containers authorized for transporting nitrogen tetroxide; tank car repairs; cargo handling procedures; and emergency response.

Highway

In the United States, there are more than 194 million registered vehicles, and 175 million licensed drivers. More than 94 percent of all transportation fatalities (about 40,000) and 99 percent of transportation injuries (5 million) are the result of motor vehicle crashes. Since 1965, the number of drivers has increased 77 percent, and the number of vehicles has increased by 106 percent. By the year 2000, drivers and vehicles are expected to increase another 7 percent, and miles traveled by 15 percent. Over the years, some of issues the Safety Board has examined include drunk driving, schoolbus safety, child safety seats, truck driver fatigue and grade crossing safety.

Completed Highway Investigations

Grade Crossing Accident/Intercession City, Florida

In May 1995, the Safety Board adopted the report of a grade crossing accident near Intercession City, Florida involving Amtrak's Silver Meteor that occurred on November 30, 1993. The failure to coordinate the roadway routing of an 82-ton turbine generator transport to a utility plant was causal. Fifty-nine persons were injured when the Amtrak train derailed after impact with the 82-ton turbine generator that was on a special vehicle, which had bottomed out on the grade crossing. The locomotive and other wreckage came to rest on or near high-pressure petroleum product pipelines buried parallel to the tracks. Safety recommendations were issued to nearly two dozen organizations regarding oversight of oversize moves, oversize move coordination, pipeline notification and hazard identification and avoidance, permitting procedures, and lounge car seat support design.

Propane Truck Collision with Bridge Column/White Plains, New York

In November 1995, the Safety Board adopted the report of the July 27, 1994, accident involving a cargo-tank semitrailer loaded with 9,200 gallons of propane, that crashed into a bridge column, propelling the propane tank into a house across the road and releasing propane that ignited. The accident killed the driver, injured 23 people, and damaged nearby homes.

Mr. Chairman, this accident was caused by the fatigue of the truck driver. As I mentioned earlier, fatigue in all modes of transportation is a "Most Wanted" issue, and the Board urged the Federal Highway Administration and the trucking industry to evaluate and revise its hours of service regulations.

Multiple Vehicle Collision During Fog/Menifee, Arkansas

In November 1995, the Safety Board adopted the report of the January 9, 1995, multiple-vehicle, rear-end collision that occurred during localized fog near Menifee, Arkansas. The accident involved eight loaded truck tractor semitrailer combinations and one light-duty delivery van. Five people were killed. Issues examined by the Board were collision warning technology use during low-visibility driving conditions, the emergency channel nine override feature for citizens band radios, and the nonuniformity in state laws governing four-way emergency hazard flasher operation.

Grade Crossing Accident/Sycamore, South Carolina

In March 1996, the Board adopted the report of the accident involving Amtrak's Silver Star that crashed into a tractor lowboy-trailer at a passive grade crossing near Sycamore, South Carolina, on May 2, 1995. The trailer was not loaded at the time of the collision, and the driver indicated that he bottomed out and became stuck on the hump crossing. Issues examined by the Board were: identification and warnings of hump crossings; emergency notifications at grade crossings; and adequacy of training for commercial drivers.

On-Going Highway Investigations

Schoolbus-Train Collision/Fox River Grove, Illinois

Mr. Chairman, any accident is tragic, but never more so than when it involves children. On October 25, 1995, seven children were killed when a Metra passenger train crashed into a schoolbus at an active grade crossing in Fox River Grove, Illinois. The schoolbus was stopped at a traffic signal. At the accident location, the nearest rail is 30 feet, 4 inches from the intersection stop line. The 38 foot, 4-inch long school bus exceeded the space available, causing the rear of the bus to extend over the railroad tracks. The train engineer saw the schoolbus stopped on the crossing about 200 yards before the impact.

We issued urgent safety recommendations regarding train speed reductions and interconnecting railroad grade crossing signals on October 31, 1995, and held a public hearing in January of this year. Issues being examined include: communications and coordination between railroads and city, county and state governments; preemptive and interconnecting railroad grade crossing signals and highway traffic lights; schoolbus route planning and schoolbus driver training; railroad-highway intersection design; and train whistle bans and train whistle audibility within schoolbuses.

As part of our outreach on this most important issue, the Safety Board has held three community briefings regarding schoolbus safety, the most recent being the one held February 26, 1996, at Middletown Community College, Virginia.

Safety at Passive Grade Crossings

I have thus far discussed three accidents that occurred at highway/railroad grade crossings. Every year about 4,600 motor vehicles are involved in accidents at grade crossings. These accidents kill about 500 people, and they injure more than 1,800 people annually. Passive crossings, those that have no train-activated warning devices, account for more than 60 percent of crossing deaths each year.

The Safety Board has begun a safety study to determine if a reduction in the number of grade crossing accidents could be achieved through engineering improvements, improved enforcement of existing traffic laws, development of safety regulations and standards, and public education programs. Data collection by theBoard's highway and railroad investigative staff began for this study in February 1996. We expect to complete the study in late Spring 1997.

Child Passenger Protection

In 1994, the Safety Board initiated a safety study to evaluate the performance of occupant restraint systems for children under the age of 11. The goal of this study is to examine the overall performance of child occupant restraint systems (safety seats and seat belts), the adequacy of relevant Federal regulations, and the comprehensiveness of state child safety seat and seat belt use laws. This study is in the data collection and analysis stage, and we expect completion in FY 1996.

As you are aware, the Safety Board does not wait for completion of an investigation or study if we become aware of safety problems that require immediate attention. During the data collection phase of the study, we investigated four accidents in which an infant was killed or severely injured as a result of an air bag deployment. Those accidents were:

- November 14, 1994 -- Banning, California. A 3-month-old child was seated in the right front passenger seat in a rear-facing, improperly installed infant safety seat; the harness straps were not properly threaded to securely hold the child in the seat, and the two-part seat was not properly secured in its base. The child sustained skull fractures.

- July 18, 1995 -- Gilbertsville, Pennsylvania. A 20-day-old child seated in the front passenger seat in a convertible child safety seat that was facing rearward was killed.

- September 20, 1995 -- Long Beach, California. A 5-month-old child seated in the right front passenger seat in an infant safety seat facing rearward was killed.

- October 3, 1995 -- Irvine, California. A 6-month-old child seated in the right front passenger seat in a convertible child safety seat that was facing rearward was severely injured.

All of the above injuries or fatalities were caused by the impact of the air bag compartment cover flap to the back of the infant safety seat at the location of the child's head. On November 2, 1995, the Safety Board issued urgent safety recommendations to government officials, automobile manufacturers, child safety seat manufacturers, and several organizations regarding the dangers of placing a rear-facing child safety seat in the front seat of a vehicle equipped with a passenger side air bag.

50-State Outreach Program

The Safety Board has initiated a 50-state outreach program to follow-up on safety recommendations issued to the individual states. Examples of these recommendations include: administrative license revocation laws, zero blood alcohol content laws for youth, primary enforcement of seat belt laws, boating while intoxicated laws, and required use of personal flotation devices by children age 12 and under.

The Safety Board is pleased that eight additional youth zero tolerance laws were enacted by the States in 1995 -- there are now 28 States plus the District of Columbia that have a zero tolerance standard for drivers under age 21. Also in 1995, Arkansas became the 39th State to enact administrative license revocation. We will continue to work with State legislatures and safety organizations on these vital safety concerns.

Marine

Much of this Nation's commerce (98 percent) travels between U.S. ports and points overseas, or on the tens of thousands of miles of inland waterways. Marine transportation is as diverse as cruise ships carrying thousands of passengers at a time to recreational boats, and from supertankers to tow boats. Water transport produces about 790 billion ton-miles a year, employing almost 200,000 persons. In 1995, there was a 6.5 percent increase in cruise ship passengers over 1994. These figures are expected to continue to rise in the coming years.

Completed Marine Investigations

ALL ALASKAN/Bering Sea

In July 1995, the Safety Board adopted the report of the accident that occurred on July 24, 1994, involving the U.S. fish processing vessel ALL ALASKAN, which caught fire near the western end of Unimak Island, Alaska. The fire burned out of control for several days before burning itself out. One person died, and vessel and cargo damage was estimated to be close to $31 million. The NTSB issued recommendations on July 17, 1995, regarding fire protection and construction standards, firefighting training, fire watch procedures, and U.S. Coast Guard and company post-accident toxicological testing procedures.

Engineroom Fire on Board the SEAL ISLAND/St. Croix, U.S. Virgin Islands

On December 12, 1995, the Safety Board completed action on the accident involving the Liberian tankship SEAL ISLAND in St. Croix, U.S. Virgin Islands on October 8, 1994. The accident occurred when lubricating oil sprayed onto the hot turbine casing and a fire erupted, burning for about 6 hours and killing three people. Issues examined were: the adequacy of management oversight of maintenance and report practices; the decision to make and the risk introduced by the temporary repair modification to the lubricating oil duplex strainer; the adequacy of emergency equipment and drills on board ocean-going ships; the adequacy of the emergency response by refinery personnel; and the adequacy of the U.S. Coast Guard's fire contingency planning for St. Croix.

ARGO COMMODORE/San Francisco Bay

In November 1995, the Safety Board adopted its report on the December 3, 1994, engineroom fire aboard the ARGO COMMODORE, a small passenger vessel on a dinner cruise in San Francisco Bay. The fire was caused by a short circuit in the starboard main engine electrical starting system. This accident involved on-going concerns related to small passenger vessels, including the issues of crew emergency training and passenger briefings -- issues on our "Most Wanted" list.

On-Going Marine Investigations

The Safety Board has six marine accidents under investigation. Those accidents are:

- April 20, 1995 – MAERSK SHETLAND – The United Kingdom tank ship MAERSK SHETLAND was outbound and overtaking the towboat BIG BAY in the Corpus Christi Channel when the vessels collided. The collision ruptured the barge's No. 2 port tank, releasing 4,514 barrels of cumene, a flammable aromatic hydrocarbon liquid. Five thousand persons in the surrounding communities were evacuated because of strong cumene vapors.

- May 27, 1995 – ALASKA SPIRIT – A fire erupted in the living quarters on board the U.S. fish processing vessel ALASKA SPIRIT while the vessel was moored in Seward, Alaska. The master received fatal injuries due to smoke inhalation, the entire second deck and pilothouse were completely incinerated, with damages estimated at about $3 million.

- June 10, 1995 -- ROYAL MAJESTY -- The Panamanian passenger ship ROYAL MAJESTY grounded on a sand bar located about 10 nautical miles east of Nantucket Island, Massachusetts. It has been determined that mechanical failure of the vessel's navigation system and human error contributed to the ship's grounding.

- June 18, 1995 -- CELEBRATION -- The Liberian registered passenger vessel CELEBRATION experienced a fire in the machinery control room while cruising near San Salvador Island in the Bahamas chain. As in several previous passenger vessel accidents, the NTSB is again looking at the adequacy of fire fighting procedures.

- June 23, 1995 -- STAR PRINCESS -- The Liberian vessel STAR PRINCESS was southbound in Lynn Canal near Juneau, Alaska when it grounded on Poundstone Rock, which was marked by a lighted buoy to identify it as a hazard to navigation.

- January 19, 1996 -- U.S. Tug SCANDIA and Tankbarge NORTH CAPE -- The U.S. Tug SCANDIA was underway en route from New York, New York to Providence, Rhode Island with the U.S. Tankbarge NORTH CAPE in tow. As the tow was executing a turn, a fire broke out in the SCANDIA's engineroom. The crew abandoned ship and the SCANDIA and NORTH CAPE ran aground near Point Judith, Rhode Island. The barge was holed on its ports and starboard sides and spilled about 828,000 gallons of heating oil.

Integrated Bridge Systems Public Forum

In marine transportation, integrated bridge systems and electronic charts, oriented to the earth's surface by precise radio navigation systems such as the Global Positioning System (GPS) and Loran, offer the potential for great improvements in navigation safety. However, the investigation of the grounding of the passenger vessel ROYAL MAJESTY near Boston on June 10, 1995, and the Board's subsequent urgent safety recommendations, indicate that there is a need to gather information on the state of the development of advanced electronic navigation and integrated bridge systems, the adequacy of industry and Government oversight, and the need for proper crew training in the use of this new equipment. The NTSB sponsored a two-day public forum that was attended by approximately 150 people to address these issues in March 1996.

Fishing Vessel Safety

Each year approximately 250 fishing vessels are lost and about 100 fishermen die in the commercial fishing industry. Despite actions taken since the release of the Safety Board's 1987 safety study on uninspected commercial fishing vessel safety, statistics continue to show a disproportionate number of fishing vessel casualties in relation to the number of vessels in service. The Safety Board is currently collecting data for a study that will focus on the need for commercial fishing vessel inspection, licensing of fishing vessel masters, and crew training requirements. We expect completion of the study in late FY 1996.

Pipeline

Pipelines carry more hazardous materials in this country than any other form of transportation. Annually, almost 600 billion ton-miles are carried in oil pipelines in 203,000 miles of pipe, and more than 17 billion cubic feet of natural gas are delivered through 1.1 million miles of gas pipeline. From 1984 to 1994, the number of miles of gas pipeline distribution mains increased by 23 percent.

Special Investigation Into Liquid Pipelines

Fifty-seven percent of crude petroleum and petroleum products are transported by pipeline. The potential threat to public safety from the release of such products has become more severe in recent years as the rate of residential and commercial development adjacent to all types of pipelines has increased. In a special investigation of U.S. liquid pipelines released in January 1996, the NTSB found that the Research and Special Programs Administration still lacks an adequate system to address corrosion control, to inspect and test pipelines, to limit the release of product from failed pipelines, and to analyze operator performance. Safety recommendations were adopted regarding these issues.

Explosion and Fire/Allentown, Pennsylvania

On June 9, 1994, following excavation work, there was a pipeline explosion and fire in buildings housing the elderly in Allentown, Pennsylvania, resulting in one fatality. Issues examined in this accident were pipeline excavation damage prevention and rapid shutdown of failed gas service lines; related safety recommendations were issued.

Most excavation accidents are preventable, but data show them to be the leading cause of reported pipeline accidents. The Allentown accident was the fifth excavation-involved pipeline accident in a 15-month period, and led to the Board's September 1994 workshop on this issue hosted with the Office of Pipeline Safety. The proceedings of that workshop were published by the NTSB in October 1995.

Railroad

Amtrak carries about 21 million intercity passengers a year, and rapid rail systems carry almost 2 billion passengers a year. The railroads haul at least $28 billion of freight business each year, and amass more than 1.1 trillion ton miles. Light rail passenger trips between 1980 and 1993 increased by 41.4 percent. Over the years, the NTSB has issued railroad safety recommendations in all railroad areas, from passenger car interiors, to rail rapid transit safety, to continuous welded rail, to hours of service for railroad personnel.

Completed Railroad Investigations

Amtrak Derailment/Selma, North Carolina

In March 1995, the Safety Board adopted the report of the accident involving Amtrak's Silver Meteor when it derailed following a collision with an intermodal trailer that had either fallen or was falling from a flat car on a passing CSX freight train at Selma, North Carolina on May 16, 1994. The accident killed the Amtrak assistant engineer. It was determined that the trailer was not properly secured to the flat car, and the Safety Board issued recommendations regarding the loading, securing and inspection of shipments.

Collision and Derailment of Burlington Northern Freight Trains/Thedford, Nebraska

In September 1995, the Safety Board adopted the report of the railroad collision that occurred June 8, 1994, near Thedford, Nebraska. An eastbound Burlington Northern (BN) train that had stopped for a train ahead was struck in the rear by a following eastbound BN train. The lead unit of the striking train derailed and came to rest on an adjacent track where it was struck by a westbound BN train. The engineer and conductor of the striking eastbound train were killed. Issues examined were: train crew inattentiveness as a result of fatigue, and positive train separation, both "Most Wanted" items. The Safety Board reiterated two recommendations regarding positive train separation.

Railroad Rear-End Collision/Cajon, California

In November 1995, the Safety Board adopted the report of the December 14, 1994, railroad collision that occurred at Cajon, California. A westbound Atchison, Topeka and Santa Fe Railway Company intermodal train collided with the rear end of a standing westbound Union Pacific Railroad Company unit coal train. Issues examined by the NTSB were air brake testing in mountain-grade territory; management oversight of train handling practices; feed-valve braking; and two-way end-of-train devices. Of the safety recommendations issued, two urgent recommendations dealt with end-of-train devices.

On-Going Railroad Investigations

New York City Transit Commuter Train Collision

A rear-end collision involving two New York City Transit commuter trains occurred June 5, 1995, on the Williamsburg Bridge. A southbound train had been standing at a red stop signal for about 15 to 20 seconds, when it was struck in the rear by another southbound train. The train operator of the striking train was fatally injured. The Safety Board held a two-day public hearing regarding this accident in New York City in November 1995. Issues being looked into are: oversight of rapid transit operations; standards for rapid transit equipment; and subway signal standards and installations.

Metro Collision-Shady Grove Station/Rockville, Maryland

The Safety Board is investigating the January 6, 1996, accident involving a Washington Metropolitan Area Transit Authority train. Train T-111 operating on Metro's Red Line collided head on with a standing, unattended equipment train at the Shady Grove Metro Station at Rockville, Maryland. The T-111 train operator received fatal injuries. At the time of the accident, it was snowing heavily in the Washington Metropolitan Area. Train T-111 reported station overruns at the two previous stations. Issues being examined include: train car crashworthiness, human performance, automatic train control/signals, weather, and management oversight of train operations, including rules, policies, and procedures.

Derailment of Burlington Northern Santa Fe Freight Train/Cajon Pass, California

On February 1, 1996, a Burlington Northern Santa Fe freight train derailed at Cajon Pass, California, killing the conductor and trainman and injuring the engineer. Forty of the 49 cars derailed, four of which contained hazardous materials. Approximately 60 people were evacuated in a radius of 1 1/2 miles, and Interstate 15 was closed until the evening of February 2, 1996. On February 5, 1996, Interstate 15 was once again closed, and an evacuation was implemented because of the fear of unstable hazardous materials. This accident occurred within sight distance of the location of a collision and derailment that occurred December 1994. Issues being examined in this accident are: management oversight, training, trains operating with unarmed 2-way telemetry devices, and mechanical inspection and repair of freight cars.

Collision and Derailment of New Jersey Transit Commuter Trains
Jersey City, New Jersey

On February 9, 1996, at about 8:40 a.m., New Jersey Transit commuter Train 1254, operating eastbound from Waldwick to Hoboken, New Jersey, collided head-on with the lead locomotive of New Jersey Transit Commuter Train 1107, a westbound train operating between Hoboken, New Jersey and Suffern, New York. There were over 400 passengers on the two trains; three fatalities and 162 injuries resulted from the collision. Issues being looked into include: operator fatigue, fitness for duty, crashworthiness of cab cars; and positive train separation.

Collision and Derailment of MARC Commuter Train and Amtrak
Silver Spring, Maryland

On February 16, 1996, a MARC commuter train from West Virginia to Washington D.C. collided with an Amtrak train en route from Washington, D. C. to Chicago, Illinois, killing 11 people. The impact ruptured a 1,500 gallon diesel tank on the first of two Amtrak locomotives, igniting a fire that swept through the front MARC passenger car. Issues being looked into include: the signals; human performance, and fuel tank integrity.

INTERMODAL

Managing Fatigue in Transportation

The National Transportation Safety Board has investigated accidents in every mode of transportation in which the effects of fatigue, circadian factors and sleep loss have been found to be causal or contributory. Nearly 80 fatigue-related safety recommendations have been issued since 1972 to the modal administrations in the Department of Transportation, transportation operators, associations and unions. Still, a fatigue factor continues to be found by many Safety Board accident investigations.

In November 1995, the Safety Board, in partnership with the NASA Ames Research Center, conducted the first ever, multi-modal symposium focusing on fatigue in transportation. The symposium was attended by nearly 600 people, including participants from 16 different countries, representing every mode of transportation, and provided tangible approaches for the transportation community to address the problem of fatigue. We expect to issue a report of the proceedings of the symposium in late Spring.

Fiscal Year 1997 Request

For fiscal year 1997, the Board is requesting $40,300,000, which is $1,526,000 more than our FY 1996 appropriation. This figure is just sufficient to allow the Board to maintain its staff at its current 350 FTE level.

That concludes my prepared statement. I will be happy to respond to any questions you may have.

PANAMA CANAL COMMISSION
PREPARED STATEMENT OF GILBERTO GUARDIA, ADMINISTRATOR

INTRODUCTION

MR. CHAIRMAN, MEMBERS OF THE PANEL, I AM GILBERTO GUARDIA, ADMINISTRATOR OF THE PANAMA CANAL COMMISSION. I AM PLEASED TO SUBMIT TESTIMONY FOR THE RECORD ON THE PROGRAMS AND ACTIVITIES OF THE PANAMA CANAL COMMISSION, AND TO UPDATE THE COMMITTEE ON THE MANAGEMENT AND OPERATION OF THE PANAMA CANAL.

THIS TESTIMONY FOR THE RECORD WILL BE MY LAST AS ADMINISTRATOR OF THE PANAMA CANAL COMMISSION. AS YOU MAY KNOW, AFTER MUCH CONSIDERATION I HAVE OFFERED MY RESIGNATION TO THE PRESIDENT OF THE UNITED STATES FOR THE PURPOSE OF ALLOWING HIM TO APPOINT, SUBJECT TO CONFIRMATION BY THE U.S. SENATE, AN INDIVIDUAL WHO WILL CARRY THROUGH TO CONCLUSION THE SUCCESSFUL TRANSFER OF THE PANAMA CANAL ADMINISTRATION TO THE REPUBLIC OF PANAMA ON DECEMBER 31, 1999, AND BE IN PLACE TO CONTINUE TO GUIDE ITS DIRECTION INTO THE TWENTY FIRST CENTURY.

I WOULD LIKE TO TAKE THIS OPPORTUNITY TO FIRST ADDRESS THE COMMISSION'S PERFORMANCE FOR FISCAL YEAR 1995, OUR CURRENT OUTLOOK FOR FISCAL YEAR 1996 AND THE COMMISSION'S FISCAL YEAR 1997 BUDGET PROGRAMS. A DISCUSSION OF CERTAIN TRANSITION ACTIVITIES WILL FOLLOW.

OPERATING RESULTS FOR FISCAL YEAR 1995

MOST MAJOR ELEMENTS OF CANAL TRAFFIC AND TOLLS REVENUE ESTABLISHED ALL-TIME RECORD LEVELS IN FISCAL YEAR 1995. OCEANGOING COMMERCIAL

CARGO ROSE 11.6 PERCENT TO 190 MILLION LONG TONS, AND PC NET TONNAGE INCREASED 10.7 PERCENT TO 217 MILLION TONS, WITH BOTH TRAFFIC CATEGORIES RECORDING THEIR HIGHEST LEVEL EVER AT THE WATERWAY.

OCEANGOING TRANSITS ROSE TO 13,631 OR 37.3 DAILY DURING THE YEAR, AN INCREASE OF 9 PERCENT FROM 12,478 OR 34.2 DAILY RECORDED IN FISCAL YEAR 1994. TRANSITS BY THE LARGE PANAMAX VESSELS, THOSE WITH BEAMS EQUAL TO OR GREATER THAN 30.5 METERS (100 FEET), ESTABLISHED YET ANOTHER RECORD BY CLIMBING TO 3,695 OR 27 PERCENT OF TOTAL OCEANGOING TRANSITS. THIS CATEGORY OF TRANSITS RECORDED A 14 PERCENT INCREASE OVER THE PRIOR YEAR.

THE TRADE-LED ECONOMIC EXPANSION IN THE UNITED STATES, EUROPE AND LATIN AMERICA, COUPLED WITH EXCEPTIONALLY HIGH SHIPMENTS OF U.S. GRAIN TO THE FAR EAST WERE RESPONSIBLE FOR THE SIGNIFICANT IMPROVEMENTS IN TRAFFIC, IN PARTICULAR, THE GREATER MOVEMENTS OF BULK-TYPE AND SPECIALIZED COMMODITIES.

FOR THE NINTH CONSECUTIVE YEAR, THE VOLATILE GRAIN TRADE REMAINED THE LEADING CANAL COMMODITY GROUP IN TERMS OF TONNAGE, HAVING RISEN 29 PERCENT TO AN ALL-TIME RECORD OF 44 MILLION LONG TONS THIS FISCAL YEAR WITHIN THIS TOTAL, CORN WAS THE KEY CARGO, WITH INCREASED SHIPMENTS TO JAPAN, CHINA, SOUTH KOREA, AND THE WEST COAST OF SOUTH AMERICA. OTHER MAJOR COMMODITY GROUPS ALSO REFLECTED GAINS WHEN COMPARED WITH FISCAL YEAR 1994, EXCEPT FOR WHEAT AND PETROLEUM PRODUCTS, WHICH SHOWED DECLINES

AS A RESULT OF THIS STRONG TRAFFIC PERFORMANCE, TOLLS REVENUE REACHED A RECORD $463 MILLION, UP 10.4 PERCENT FROM THE AMOUNT COLLECTED IN

FISCAL YEAR 1994. TOTAL OPERATING REVENUES FOR THE YEAR WERE $586 MILLION.

OPERATING EXPENSES IN FISCAL YEAR 1995 ALSO WERE $586 MILLION, AN INCREASE OF $40 MILLION OR 7.3 PERCENT OVER FISCAL YEAR 1994. TONNAGE PAYMENTS TO THE GOVERNMENT OF PANAMA ROSE $10 MILLION TO $80 MILLION IN 1995 AS A RESULT OF THE INCREASED TRAFFIC VOLUME AND A BIENNIAL CHANGE IN THE TONNAGE RATE FROM $.36 TO $.37 PER PC/UMS NET TON. TOTAL PAYMENTS TO PANAMA WERE $100 MILLION OR 17 PERCENT OF TOTAL OPERATING EXPENSES. PAYROLL COSTS AT $309 MILLION WERE UP 9.4 PERCENT, REFLECTING WAGE INCREASES (2.86 PERCENT FOR WAGE BOARD EMPLOYEES AND A 2.0 PERCENT INCREASE FOR GENERAL SCHEDULE EMPLOYEES) EFFECTIVE JANUARY 1995, A $10 MILLION PROVISION FOR SEVERANCE PAY AND ADDITIONAL MANPOWER RESOURCES THAT WERE REQUIRED FOR THE HIGHER VOLUME OF TRAFFIC. THE $10 MILLION SEVERANCE PAY PROVISION WAS BASED ON PROPOSED REGULATIONS ISSUED BY OPM PRESCRIBING ENTITLEMENTS FOR FEDERAL EMPLOYEES OF THE COMMISSION WHO WILL BE AFFECTED BY THE TRANSFER OF THE WATERWAY TO PANAMA ON DECEMBER 31, 1999. FULL-TIME EQUIVALENTS (FTEs) ROSE FROM 8,535 IN FY 1994 TO 8,819 IN FY 1995.

THE CAPITAL CONTRIBUTION WAS INCREASED TO $22 MILLION AS COMPARED TO $11.5 MILLION IN FISCAL YEAR 1994, TO PROVIDE ADDITIONAL FUNDING OF THE COMMISSION'S CAPITAL PROGRAM.

AT THE BOTTOM LINE, THE COMMISSION HAD NET OPERATING REVENUES OF $8 MILLION, WHICH UNDER THE PROVISIONS OF THE 1977 PANAMA CANAL TREATY, WOULD HAVE BEEN PAYABLE TO THE GOVERNMENT OF PANAMA. HOWEVER, THE BINATIONAL BOARD OF DIRECTORS (WITH THE ENDORSEMENT OF PRESIDENT PEREZ-BALLADARES) UNANIMOUSLY AGREED TO FOREGO THE PROFIT PAYMENT

TO PANAMA AND TO INCREASE THE CONTRIBUTION TO THE COMMISSION'S CAPITAL EXPENDITURE PROGRAM.

OUTLOOK FOR FISCAL YEAR 1996

CANAL TRAFFIC AND TOLLS REVENUE ARE EXPECTED TO REMAIN STRONG IN FY 1996, INCREASING MARGINALLY WHEN COMPARED TO THE RECORD LEVELS FOR 1995. GIVEN CURRENT TRADE PATTERNS AT THE WATERWAY, ROBUST PERFORMANCE IS ANTICIPATED IN THE FIRST HALF OF THE YEAR, WITH GROWTH RATES FALLING TO LOWER NUMBERS TOWARD THE END OF THE FISCAL PERIOD. A SMALL ADDITIONAL UPTURN FOR THE FULL YEAR IS EXPECTED AS THE WORLD ECONOMY CONTINUES TO IMPROVE, LED BY TRADE-DRIVEN ECONOMIC ACTIVITY

DESPITE A PROJECTED SLOWING IN THE U.S. ECONOMY, TRADE TO AND FROM THE U.S. WILL REMAIN STRONG IN VIEW OF THE DEPRECIATED DOLLAR AND FURTHER U.S. PRODUCTIVITY GAINS EUROPEAN ECONOMIC ACTIVITY IS EXPECTED TO CONTINUE ON A RECOVERY PATH AND JAPANESE TRADE SHOULD BE STEADY DESPITE IMPORTANT SHORT AND LONG TERM PROBLEMS IN THE JAPANESE ECONOMY INDUSTRIALIZING NATIONS IN LATIN AMERICA AND THE FAR EAST WILL CONTINUE TO DO WELL DURING THIS PERIOD AND WILL BENEFIT GREATLY FROM RAPID RATES OF INVESTMENT IN PHYSICAL AND HUMAN CAPITAL, MARKET REFORMS, EXPORT-LED GROWTH AND RISING DOMESTIC DEMAND GROWTH IN ALL EMERGING MARKETS SHOULD CONTINUE TO OUT PACE GROWTH IN THE INDUSTRIAL COUNTRIES.

CONSONANT WITH THESE DEVELOPMENTS, OCEANGOING TRANSITS FOR ALL OF FISCAL YEAR 1996 ARE FORECAST TO INCREASE MODESTLY, TO 13,704 OR 37.4 DAILY AS COMPARED TO 13,631 OR 37.3 DAILY IN FY 1995.

TOLLS REVENUE FOR FISCAL YEAR 1996 IS ESTIMATED AT $464 MILLION. A MARGINAL INCREASE OF 0.3 PERCENT OVER THE SPECTACULAR LEVELS ACHIEVED IN FISCAL YEAR 1995. TOTAL OPERATING REVENUES ARE ESTIMATED AT $607 MILLION VERSUS $586 LAST YEAR. THE CAPITAL CONTRIBUTION FOR THE FINANCING OF THE CAPITAL PROGRAMS (DEDUCTED FROM TOLLS REVENUE) IS $24 MILLION VERSUS $30 MILLION IN FY 1995, (INCLUDING THE $8 MILLION OF EXCESS REVENUES CONTRIBUTED BY PANAMA TO CAPITAL FUNDING).

OPERATING EXPENSES FOR FISCAL YEAR 1996 ARE BUDGETED AT $607 MILLION, A 3.6 PERCENT INCREASE OVER THE $586 MILLION INCURRED IN FISCAL YEAR 1995. PAYROLL COSTS ARE FORECAST AT $328 MILLION, AN INCREASE OF $19 MILLION OR 6 PERCENT OVER FISCAL YEAR 1995 AND ACCOUNT FOR MOST OF THE NET CHANGES IN OPERATING EXPENSES BETWEEN THE TWO YEARS. PAYROLL COSTS INCLUDE ASSUMED WAGE INCREASES OF APPROXIMATELY 2.0 PERCENT EFFECTIVE JANUARY 1, 1996, AND ALSO GENERALLY REFLECT INCREASED STAFFING FOR TRANSIT RELATED RESOURCES AND INCREASED LOCKS MAINTENANCE ACTIVITIES.

AT THE BOTTOM LINE A BREAK-EVEN OPERATION IS BUDGETED FOR FY 1996.

BUDGET FOR FISCAL YEAR 1997

AS THE CHAIRMAN MENTIONED IN HIS STATEMENT, THE DEPARTMENT OF DEFENSE AUTHORIZATION ACT FOR FY 1996 (PUBLIC LAW 104-106) RECONSTITUTED THE COMMISSION AS A WHOLLY-OWNED GOVERNMENT CORPORATION UNDER CHAPTER 91 OF TITLE 31, UNITED STATES CODE. THIS STATUS IS NOT A NEW ONE FOR THE CANAL, AS THE COMMISSION'S PREDECESSOR, THE PANAMA CANAL COMPANY, OPERATED THE WATERWAY

BETWEEN JULY 1951 AND OCTOBER 1979 AS A CORPORATE AGENCY IN THE EXECUTIVE BRANCH

IN FISCAL YEAR 1997, THE ADMINISTRATION HAS NOT PROPOSED ANY APPROPRIATION LANGUAGE FOR THE COMMISSION THE COMMISSION WILL, HOWEVER, BE SUBJECT TO ALL OF THE CONGRESSIONAL REVIEW PROVISIONS OF THE GOVERNMENT CORPORATION CONTROL ACT, INCLUDING THE REQUIREMENT TO SUBMIT TO CONGRESS ITS DETAILED BUDGET PROPOSAL THEREFORE, CONGRESS WILL CONTINUE TO HAVE THE ABILITY TO REVIEW THE COMMISSION'S BUDGET AND THE FLEXIBILITY TO EXERCISE APPROPRIATE OVERSIGHT OVER THE COMMISSION'S BUDGET AND PROGRAMS.

THIS CHANGE TO A CORPORATE FORM WAS IN RECOGNITION OF THE COMMISSION'S BUSINESS ORIENTATION. AS YOU WELL KNOW, THE COMMISSION MUST OPERATE WITHIN THE LIMITS OF THE REVENUES IT EARNS BY PROVIDING SERVICES IN A HIGHLY COMPETITIVE, DYNAMIC MARKET. THE RECENT CHANGES ARE CONSISTENT WITH MANY OF THE GOVERNMENT REFORM EFFORTS AIMED AT IMPROVING THE FEDERAL GOVERNMENT'S EFFICIENCY AND PROVIDING EXCELLENT SERVICE FOR ITS "CUSTOMERS."

YOU HAVE ALREADY TAKEN A STEP IN THAT DIRECTION BY REMOVAL IN FY 1996 OF THE FIXED DOLLAR CAP ON OVERALL EXPENDITURES. BEFORE, AS YOU KNOW, BETTER THAN EXPECTED TRAFFIC WOULD SOMETIMES FORCE US TO SEEK SUPPLEMENTAL LEGISLATION TO EXPEND SUFFICIENT FUNDS TO ADEQUATELY SERVICE THAT LEVEL OF TRAFFIC

ONE REASON WE BELIEVE ADOPTING THE ADMINISTRATION'S FISCAL YEAR 1997 APPROACH FOR THE AGENCY IS WARRANTED IS BECAUSE OF PROBLEMS INHERENT IN THE ADMINISTRATIVE EXPENSE LIMITATION OUR AGENCY HAD

TO SEEK A SUPPLEMENTAL APPROPRIATION TO ALLOW US TO SPEND $2 MILLION FOR UNFORESEEABLE EXPENSES OVER WHICH THE COMMISSION HAD NO CONTROL. I WILL TAKE THIS OPPORTUNITY TO THANK THE COMMITTEE FOR ITS SUPPORT OF THE SUPPLEMENTAL APPROPRIATION PROVIDED IN PUBLIC LAW 104-134 TO REMEDY THIS PROBLEM.

LIMITATIONS ON RECEPTION AND REPRESENTATION AMOUNTS HAVE BEEN INCLUDED IN PAST YEARS' APPROPRIATIONS FOR THE COMMISSION. CONSISTENT WITH THE ADMINISTRATION'S BUDGET PROPOSAL, WE REQUEST THAT THESE LIMITATIONS ON RECEPTION AND REPRESENTATION OBLIGATIONS NOT BE CONTINUED IN THE APPROPRIATIONS BILL. I BELIEVE THAT INCLUSION OF THE LIMITATION IN THE COMMISSION'S ANNUAL AUTHORIZATION BILL AND THE BUDGET REVIEW PROVISIONS OF THE GOVERNMENT CORPORATION CONTROL ACT SHOULD PROVIDE FOR ADEQUATE CONGRESSIONAL OVERSIGHT AND CONTROL OF THESE COSTS. THE COMMISSION'S PENDING 1997 AUTHORIZATION BILL, AS PROPOSED BY THE ADMINISTRATION AND AS CLEARED BY THE HOUSE AND SENATE AUTHORIZING COMMITTEES, DOES INCLUDE SPECIFIC DOLLAR LIMITATIONS ON RECEPTION AND REPRESENTATION AMOUNTS.

THESE EXPENDITURES ARE EXPECTED TO INCREASE, AS DEMANDS FOR TRANSITION-RELATED FUNCTIONS ARE ACCELERATING. FOR EXAMPLE, THE NUMBER OF BINATIONAL BOARD MEETINGS HAS DOUBLED FROM FOUR TO EIGHT ANNUALLY, AND THERE WILL BE AN INCREASING NEED FOR MEETINGS, BRIEFINGS AND CONFERENCES AMONG U.S. AND PANAMANIAN GOVERNMENT OFFICIALS, LEGISLATORS AND INTERNATIONAL BUSINESS LEADERS TO CARRY OUT THE WIDE RANGE OF COORDINATED ACTIVITIES NECESSARY FOR A SUCCESSFUL TRANSITION

AS YOU KNOW, THESE EXPENDITURES CONSTITUTE A VERY SMALL PERCENTAGE OF OUR BUDGET, YET ACTIVITIES UTILIZING RECEPTION AND REPRESENTATION-CLASSIFIED COSTS WILL BE AMONG THE MOST IMPORTANT AND VISIBLE COMPONENTS OF OUR LONG-TERM TRANSITION EFFORTS.

I WOULD LIKE TO ASSURE THIS COMMITTEE THAT, DESPITE THE CHANGES WE ARE SEEKING CONSISTENT WITH PUBLIC LAW 104-106, THE COMMISSION WOULD ALWAYS REMAIN AVAILABLE TO THE COMMITTEE TO PROVIDE ANY INFORMATION OR ANSWER ANY QUESTIONS IT HAS ON OUR DETAILED BUDGET SUBMISSIONS, OR ANY OTHER MATTER IN WHICH IT IS INTERESTED. IN THIS WAY I BELIEVE THAT THE COMMISSION CAN ATTAIN THE PRACTICAL FLEXIBILITY AT WHICH PUBLIC LAW 104-106 IS AIMED, WHILE RETAINING THE ACCOUNTABLE, RESPONSIVE AND HARMONIOUS RELATIONSHIP THIS AGENCY HAS HAD WITH THE COMMITTEE.

TURNING TO THE BUDGET FOR FY 1997, THE COMMISSION HAS ESTIMATED A BREAK-EVEN OPERATION FOR THE YEAR.

TOTAL OPERATING REVENUES (AFTER PROVIDING $10 MILLION FOR OUR CAPITAL EXPENDITURE PROGRAM) ARE ESTIMATED AT $624 MILLION. TOLLS REVENUE, AT EXISTING RATES ARE FORECAST AT $467 MILLION.

CANAL TRAFFIC AND TOLLS REVENUE SHOULD CONTINUE TO IMPROVE AS THE TRANSITION TO A MODERATE GROWTH ECONOMY IS SUCCESSFULLY COMPLETED AND SUSTAINED IN THE UNITED STATES, AND AS GROWTH IN THE LATIN AMERICAN REGION RESULTS IN EXPANDED INTRA AND INTER-REGIONAL TRADE.

ONCE AGAIN GRAINS ARE PROJECTED TO REMAIN THE SINGLE MOST

IMPORTANT CANAL TRADE IN THE WAKE OF STRONG WORLD DEMAND, WITH THE WHEAT AND SOYBEAN TRADES RECOVERING DURING THE PERIOD. TRADING IN OTHER BULK-TYPE COMMODITIES SUCH AS PHOSPHATES, PULPWOOD, FERTILIZERS, AND CRUDE OIL; CONTAINER TRADING TO AND FROM THE WEST COAST OF SOUTH AMERICA; AND REEFER MOVEMENTS TO EUROPE AND THE U.S. EAST COAST SHOULD CONTINUE TO DRIVE CANAL TRAFFIC DURING FISCAL YEAR 1997. ADDITIONAL GROWTH WILL COME FROM THE BANANA TRADE DUE TO A GREATER EUROPEAN UNION QUOTA AND STRONGER CONSUMER DEMAND.

BASED ON THE NEW LEVELS OF CARGO PROJECTED FOR FISCAL YEAR 1997, OCEANGOING TRANSITS ARE NOW FORECAST TO RISE SLIGHTLY BY 0.4 PERCENT TO 13,757 OR 37.7 DAILY, AND TOLLS REVENUE IS EXPECTED TO INCREASE 0.6 PERCENT TO $467. MILLION.

TOTAL OPERATING COSTS IN FY 1997 ARE ESTIMATED AT $624 MILLION, AN INCREASE OF 2.7 PERCENT OVER FY 1996. PAYROLL AND RELATED COSTS ARE BUDGETED AT $339, AN INCREASE OF 3.4 PERCENT OVER THE $328 MILLION ESTIMATED FOR 1996. PAYROLL COSTS INCLUDE AN ASSUMED PAY INCREASE OF 2.0 PERCENT FOR ALL EMPLOYEES EFFECTIVE IN JANUARY 1997. TREATY MANDATED PAYMENTS TO PANAMA ARE ESTIMATED AT $105 MILLION, AN INCREASE OF 4.8 PERCENT, RESULTING FROM AN ANTICIPATED INCREASE IN THE TONNAGE RATE FROM $0.37 TO $0.39 PER TON, EFFECTIVE OCTOBER 1, 1996, AS WELL AS A MODEST INCREASE IN CANAL TRAFFIC LEVELS.

IN SUMMARY, THE COMMISSION HAS BUDGETED A BREAK-EVEN OPERATION FOR FY 1997, TO RECOVER ALL COSTS OF OPERATIONS AND THE FUNDS REQUIRED TO FINANCE ITS CAPITAL IMPROVEMENT PROGRAM.

1997 CAPITAL PROGRAM

THE DISCUSSION OF CANAL TRAFFIC VOLUMES IN FISCAL YEAR 1995 AND THE ESTIMATES FOR 1996 AND 1997 PROVIDES A FRAMEWORK FOR THE REVIEW OF OUR CAPITAL PROGRAM OVER THE NEXT SEVERAL YEARS

THE QUALITY OF SERVICE PROVIDED BY THE CANAL TO THE INTERNATIONAL MARITIME COMMUNITY IS DIRECTLY RELATED TO THE WATERWAY'S CAPACITY FOR MEETING TRANSIT DEMAND. BECAUSE TIME AND RELIABILITY ARE CRITICAL IN THE SHIPPING INDUSTRY, ONE OF THE IMPORTANT INDICATORS FOR JUDGING QUALITY IS CANAL WATERS TIME, WHICH MEASURES THE PERIOD A VESSEL SPENDS AT THE WATERWAY ONCE IT IS READY FOR TRANSIT IN ADDITION, THE RECORD-BREAKING TRAFFIC LEVELS IN FISCAL YEAR 1995 TESTED THE COMMISSION'S ABILITY TO MEET ITS LONG-STANDING COMMITMENT TO A 24 HOUR STANDARD.

TO ENSURE THAT THE PANAMA CANAL IS EQUIPPED TO MEET FUTURE TRAFFIC DEMANDS AND THAT QUALITY TRANSIT SERVICE IS MAINTAINED OVER THE LONG TERM, THE COMMISSION'S BOARD OF DIRECTORS APPROVED OUR PLAN TO EXPAND THE CAPITAL PROGRAM BUDGET FOR THE NEXT FIVE YEARS THE ENHANCED CAPITAL PROGRAM BUDGET WILL ALLOW THE COMMISSION TO INCREASE CANAL CAPACITY MORE RAPIDLY BY AUGMENTING AND SPEEDING UP THE IMPLEMENTATION OF A NUMBER OF MODERNIZATION AND IMPROVEMENT PROGRAMS

THE CANAL'S MAXIMUM SUSTAINABLE CAPACITY IS 42 TRANSITS PER DAY, BUT THE CURRENT OPERATING CAPACITY IS ABOUT 39, THE MAXIMUM AVERAGE DAILY TRANSIT LEVEL AT WHICH WE CAN SUSTAIN A CANAL WATERS TIME OF 24 HOURS AVERAGE CANAL WATERS TIME WOULD INCREASE WELL ABOVE THE

BENCHMARK IF THE AVERAGE DAILY TRANSIT LEVEL EXCEEDS THE CURRENT OPERATING CAPACITY.

THE DAILY TRANSIT AVERAGE FOR FISCAL YEAR 1995 EXCEEDED 37, AND FORECASTS INDICATE THAT THE AVERAGE COULD APPROACH THE CURRENT OPERATING CAPACITY OF 39 BY FISCAL YEAR 1999. THE ACCELERATED MODERNIZATION AND IMPROVEMENT PROGRAM APPROVED BY THE BOARD WILL PROVIDE THE CANAL WITH THE STRUCTURAL CHANGES AND EQUIPMENT NEEDED TO INCREASE OPERATING CAPACITY TO ABOUT 44 AND MAXIMUM SUSTAINABLE CAPACITY TO 50 TRANSITS PER DAY, REFLECTING THE COMMISSION'S COMMITMENT TO GUARANTEE THE ABILITY OF THE WATERWAY TO MEET THE TRANSIT DEMANDS OF THE NEXT CENTURY.

THE NEW FIVE-YEAR PACKAGE WOULD RAISE THE TOTAL CAPITAL INVESTMENT FOR FISCAL YEARS 1996 THROUGH 2000 FROM $247 MILLION ORIGINALLY PLANNED TO $377 MILLION. THE ADDITIONAL INVESTMENT TO THE COMMISSION'S ONGOING CAPITAL PROGRAM WOULD PROVIDE FUNDS FOR FIVE MAJOR EFFORTS --- ACCELERATING THE GAILLARD CUT WIDENING PROGRAM, AUGMENTING THE TUGBOAT FLEET, DESIGNING AND PROCURING NEW LOCKS LOCOMOTIVES, ENHANCING AND MODERNIZING THE VESSEL TRAFFIC-MANAGEMENT SYSTEM AND MODERNIZING LOCKS-MACHINERY CONTROL SYSTEMS.

A FEW COMMENTS ON A SPECIFIC CAPITAL PROGRAM, WHICH THIS COMMITTEE IS FAMILIAR WITH, WILL DEMONSTRATE THE OBJECTIVES OF THE EXPANDED CAPITAL PROGRAM --- ACCELERATING THE GAILLARD CUT WIDENING PROGRAM.

FOR SAFETY REASONS, RESTRICTIONS ARE IMPOSED ON CERTAIN CATEGORIES OF VESSEL TRAFFIC IN THE 13-KILOMETER-LONG CUT, RESULTING IN AN ENTIRELY NORTHBOUND TRAFFIC FLOW DURING THE EARLY DAYLIGHT HOURS, AN ENTIRELY SOUTHBOUND FLOW BY THE AFTERNOON AND A MIXED FLOW DURING THE REMAINING HOURS. THE FLOW CHANGES THAT OCCUR SEVERAL TIMES DAILY ARE REQUIRED TO MAINTAIN CANAL WATERS TIME UNDER 24 HOURS, BUT THIS RESULTS IN A LOCKS UTILIZATION OF ONLY ABOUT 80 PERCENT.

IN JULY 1991, THE COMMISSION BOARD OF DIRECTORS APPROVED A LONG-RANGE PROGRAM TO WIDEN THE CUT FROM ITS EXISTING 500 FEET TO A MINIMUM OF 630 FEET ALONG STRAIGHT STRETCHES AND TO 730 FEET AT CURVES.

AFTER THE WIDENING IS COMPLETED, MANY OF THE EXISTING RESTRICTIONS, INCLUDING THOSE LIMITING TRAFFIC FLOW TO A SINGLE DIRECTION, CAN BE ELIMINATED, INCREASING THE POTENTIAL FOR A LOCKS UTILIZATION TO MORE THAN 90 PERCENT. HIGHER UTILIZATION LEVELS WOULD BE IMPOSSIBLE TO ACHIEVE DUE TO MAINTENANCE, THE INEVITABILITY OF OCCASIONAL SYSTEM DELAYS CAUSED BY VESSEL BREAKDOWNS AND OTHER EVENTS THAT CANNOT BE ANTICIPATED.

PRIOR TO THE BOARD'S APPROVAL OF THE ENHANCED CAPITAL INVESTMENT PACKAGE, $10 MILLION HAD BEEN BUDGETED FOR THE OVERALL WIDENING PROGRAM FOR EACH OF THE NEXT FIVE YEARS, WITH A TARGETED COMPLETION BY THE YEAR 2014.

THE NEW PLAN WILL INCREASE THE TOTAL FIVE-YEAR INVESTMENT BY MORE THAN 90 PERCENT AND CALLS FOR ALL MAJOR DRY-EXCAVATION CONTRACTS

TO BE AWARDED BY FISCAL YEAR 1999 AND COMPLETED BY 2001. THE WET EXCAVATION SHOULD BE COMPLETED BETWEEN FISCAL YEARS 2003 AND 2005.

THE APPROVAL OF THE ENHANCED IMPROVEMENT PACKAGE BY OUR BOARD OF DIRECTORS AND THE INCREASED CAPITAL PROGRAM BUDGET FOR FISCAL YEARS 1996 AND 1997, UNDERSCORE THE COMMISSION'S COMMITMENT TO THE LONGER-RANGE ACCELERATED INVESTMENT PLAN COVERING FISCAL YEARS 1998 THROUGH 2000 AND THE PERIOD BEYOND. THE EXPANDED PROGRAM WILL ENSURE A MODERN CANAL INTO THE TWENTY FIRST CENTURY, PROVIDING SUFFICIENT CAPACITY TO MEET EXPECTED TRAFFIC DEMANDS WITH THE CANAL'S TRADITIONAL HIGH QUALITY OF SERVICE.

OUTLOOK FOR TOLL INCREASES OVER THE NEXT SEVERAL YEARS

COMMISSION MANAGEMENT IS CURRENTLY REEXAMINING THE CANAL BUDGET REQUIREMENTS FOR FISCAL YEAR 1997 AND BEYOND TO DETERMINE ITS FUTURE REVENUE NEEDS THIS REVIEW WILL TAKE INTO ACCOUNT ALL DEVELOPMENTS IMPACTING ON THE COMMISSION'S BUDGET INCLUDING ANY CHANGES IN TRAFFIC AND TOLL REVENUE FORECASTS AND OPERATING BUDGETS FOR FISCAL YEARS 1996 THROUGH 1998; ADDITIONAL FUNDING REQUIREMENTS FOR THE EXPANDED CAPITAL PROGRAM FOR FISCAL YEARS 1996 THROUGH 1999; AND ANY NECESSARY ADJUSTMENTS TO MAINTENANCE AND CAPITAL PROGRAMS RECOMMENDED BY THE U.S. ARMY CORPS OF ENGINEERS AT THE CONCLUSION OF THEIR CURRENT CANAL INFRASTRUCTURE STUDY

THE COMMISSION REMAINS COMMITTED TO PROVIDE INTERNATIONAL SHIPPING WITH HIGH QUALITY TRANSIT SERVICE, WHILE KEEPING TOLLS AS LOW AS POSSIBLE. WHILE THIS REVIEW MAY LEAD TO A PROPOSED INCREASE, IT IS

ANTICIPATED THAT ANY FUTURE RATE HIKES WOULD BE ON A CALENDAR YEAR REQUIREMENT BASIS, IN AMOUNTS BELOW THE 9.9 PERCENT INCREASE IN 1992. THE COMMITTEE WILL BE KEPT FULLY INFORMED AND WOULD BE PROVIDED ADVANCE NOTICE OF ANY INTENDED TOLL RATE INCREASE

TRANSITION ACTIVITIES

AS WE NEAR THE END OF U.S. ADMINISTRATION AND OPERATION OF THE CANAL, WE MUST ENSURE THAT ALL NECESSARY ACTIONS ARE TAKEN TO ENSURE THAT THE TRANSITION TO PANAMANIAN OPERATION AND CONTROL IS SMOOTH AND SEAMLESS, AND THAT THE CANAL CONTINUES TO OFFER THE SAME LEVEL OF HIGH QUALITY RELIABLE SERVICE AND ECONOMIC VALUE TO ITS CUSTOMERS. IN THAT REGARD I WOULD LIKE TO PRESENT AN OVERVIEW OF THE TRANSITION PROCESS.

SINCE ITS CONSTRUCTION, THE CANAL HAS ALWAYS BEEN SUBJECT TO CHANGES IN ITS EXTERNAL ENVIRONMENT; -- CHANGES IN WORLD TRADE PATTERNS, INCREASES IN TRAFFIC AND SHIP SIZE, CHANGES IN TECHNOLOGY, -- THEY ALL HAVE IMPACTED THE CANAL IN ONE WAY OR ANOTHER. TO WEATHER THESE CHANGES AND REMAIN VIABLE, CANAL MANAGEMENT HAS ALWAYS MONITORED THE EVOLUTION OF THESE TRANSFORMATIONS AS THEY DEVELOPED, AND PLANNED TIMELY ADJUSTMENTS TO THE CANAL'S OPERATION AND INFRASTRUCTURE, TO ENSURE THAT ITS USERS NEVER PERCEIVE A DECLINE IN EFFICIENCY, RELIABILITY, AND SAFETY, OR SUDDEN, UNEXPECTED INCREASES IN PRICE

PLANNING AND IMPLEMENTATION FOR THE TRANSFER OF THE PANAMA CANAL TO THE REPUBLIC OF PANAMA IS BEING DONE IN THE SAME MANNER, WITH THE

SAME ENTHUSIASM AND CARE AS OTHER MAJOR UNDERTAKINGS. THE COMMISSION'S TRANSITION EFFORTS BEGAN RIGHT AFTER THE TREATIES WERE SIGNED AND IMPLEMENTED.

ONE SIGNIFICANT TRANSITION ACTIVITY HAS BEEN THE INCREASE IN PANAMANIAN PARTICIPATION THROUGHOUT THE WORK FORCE. THE COMMISSION HAS FOLLOWED AN ORDERLY AND SYSTEMATIC PROCESS TO EXPAND PANAMANIAN PARTICIPATION THROUGHOUT THE ORGANIZATION WITH THE OBJECTIVE TO HAVE A QUALIFIED PANAMANIAN WORK FORCE IN PLACE TO MANAGE AND OPERATE THE WATERWAY IN THE POST-TREATY ERA. ALREADY THE COMMISSION'S WORK FORCE IS OVER 90% PANAMANIAN, AND PANAMANIAN PARTICIPATION IS INCREASING SIGNIFICANTLY IN MANAGEMENT POSITIONS AND IN THE PROFESSIONAL AND SKILLED CRAFTS AREAS SO IMPORTANT TO THE EFFICIENT OPERATION OF THE CANAL.

DURING THE LAST 17 YEARS, THE PANAMA CANAL COMMISSION INCREASED ITS EMPHASIS ON MAJOR MAINTENANCE EFFORTS AND CAPITAL EXPENDITURES TO IMPROVE THE WATERWAY WHICH REFLECT ON THE PANAMA CANAL COMMISSION'S COMMITMENT TO ENSURE THE LONG-TERM OPERATION OF THE CANAL. OVERALL, MORE THAN 2 3 BILLION DOLLARS HAVE BEEN SPENT SINCE 1979 IN MAINTAINING, IMPROVING AND MODERNIZING THE WATERWAY. I HAVE ALREADY DESCRIBED THE ACCELERATION OF CERTAIN PROJECTS, TO MAKE SURE THAT THE CANAL IS READY TO MEET TRAFFIC REQUIREMENTS WELL INTO THE NEXT DECADE

CONCERNED ABOUT THE AUTONOMY OF THE CANAL POST-1999, WE CONDUCTED A SURVEY TO IDENTIFY ESSENTIAL SERVICES CURRENTLY PROVIDED BY U.S. AGENCIES AND OTHER ORGANIZATIONS TO THE PANAMA CANAL COMMISSION, WHICH MAY NOT BE READILY TRANSFERABLE TO A CORRESPONDING PANAMA

AGENCY POST-1999. THE SURVEY PROVIDED RECOMMENDATIONS ON SPECIFIC ARRANGEMENTS THAT NEED TO BE MADE TO ESTABLISH ALTERNATE SOURCES FOR SOME OF THOSE SERVICES DEEMED ESSENTIAL TO POST-1999 OPERATIONS.

ANOTHER IMPORTANT ELEMENT IN THE TRANSITION PROCESS IS THE CHANGE APPROVED LAST YEAR BY THE BOARD OF DIRECTORS TO THE CANAL'S MISSION STATEMENT WHICH NOW INCLUDES A SPECIFIC OBJECTIVE TO ENSURE THAT THE TRANSITION PROCESS IS PROVIDED ALL APPROPRIATE SUPPORT NECESSARY FOR ITS SUCCESSFUL EXECUTION. IN LINE WITH THIS ADDITION TO THE MISSION STATEMENT OF THE CANAL, WE PRESENTED AND THE BOARD OF DIRECTORS APPROVED A TRANSITION MILESTONE PLAN THAT INCLUDES OVER TWO HUNDRED TASKS TO BE EXECUTED, SOME OF WHICH NEED TO BE COORDINATED WITH THE GOVERNMENT OF PANAMA BEFORE 1999.

CONSIDERING THE IMPORTANCE OF THE MILESTONE PLAN, I HAVE ASSIGNED THE DEPUTY ADMINISTRATOR OVERALL RESPONSIBILITY FOR EXECUTING, MONITORING, AND REPORTING ON THE PROGRESS OF THIS PLAN. IN LINE WITH THIS ASSIGNMENT, WE HAVE ESTABLISHED A DEDICATED DIVISION THAT HAS THE PRIMARY RESPONSIBILITY OF SUPPORTING AGENCY TRANSITION PLANNING.

MAJOR TASK GROUPS IN THE PLAN INCLUDE THE REVIEW AND ANALYSIS OF THE COMMISSION REGULATIONS, MANAGEMENT AND OPERATING PRACTICES, AND ORGANIZATIONAL STRUCTURE. TO FACILITATE COMMUNICATION AND COORDINATION BETWEEN THE PANAMA CANAL COMMISSION AND THE GOVERNMENT OF PANAMA'S TRANSITION COMMISSION, WE ARE TRANSLATING INTO SPANISH ALL U.S. LAWS AND REGULATIONS, ADMINISTRATIVE RULINGS AND DIRECTIVES, AND MAJOR JUDICIAL PRECEDENTS BEARING UPON THE CANAL'S OPERATION AND ADMINISTRATION. THIS EFFORT HAS PROVEN TO BE

VERY USEFUL IN THE DRAFTING, BY PANAMA, OF THE NEW ORGANIC LAW WHICH WILL ESTABLISH AND GOVERN THE CANAL ORGANIZATION POST-1999 AND WILL ALSO BE VERY VALUABLE WHEN DRAFTING THE CANAL REGULATIONS THAT WILL BE APPROVED BY THE NEW CANAL AUTHORITY.

IN THE AREA OF HUMAN RESOURCE DEVELOPMENT, THE MILESTONE PLAN INCLUDES THE DEVELOPMENT AND IMPLEMENTATION OF A SUCCESSION PROGRAM THAT WILL ENSURE THE CONTINUITY OF QUALIFIED PERSONNEL IN KEY POSITIONS SUCCESSION PLANNING CONSISTS IN IDENTIFYING KEY POSITIONS IN THE ORGANIZATION, DETERMINING BASIC QUALIFICATION STANDARDS REQUIRED BY THESE POSITIONS, IDENTIFYING THROUGHOUT THE ORGANIZATION POTENTIAL CANDIDATES TO OCCUPY THOSE KEY POSITIONS, AND DEVELOPING TRAINING PROGRAMS TAILORED TO PREPARE THE POTENTIAL CANDIDATES FOR THE FUTURE.

IN THE AREA OF OPERATIONS, THE BOARD OF DIRECTORS PROPOSED THAT A THIRD PARTY CONDUCT A STUDY TO DOCUMENT THE CURRENT STATE OF THE CANAL'S INFRASTRUCTURE AND EVALUATE THE AGENCY'S MAINTENANCE AND CAPITAL INVESTMENT PROGRAMS. THE PROCESS INCLUDES ASSESSMENT OF INVESTMENT PRIORITIES, THE APPLICABILITY AND ECONOMICS OF ADDITIONAL STATE-OF-THE-ART TECHNOLOGY, AND MANAGEMENT SYSTEMS THAT COULD ENHANCE CANAL PERFORMANCE AND RELIABILITY OVER THE NEXT 20 YEARS. THE U.S. ARMY CORPS OF ENGINEERS BEGAN THE STUDY LAST SEPTEMBER AND THE FINAL REPORT WILL SOON BE PRESENTED TO THE BOARD FOR REVIEW. A CONTRACT WAS ALSO AWARDED TO A SELECT GROUP OF ENGINEERS TO TRACK THE CORPS OF ENGINEER'S STUDY.

AS PART OF THE TRANSITION EFFORTS, THE PANAMA CANAL COMMISSION HAS ALSO BEEN PROVIDING ADVICE TO REPRESENTATIVES OF THE INTEROCEANIC

REGION AUTHORITY (ARI) REGARDING THE DEVELOPMENT OF THE MASTER PLAN FOR THE REVERTED AREAS. IN THIS RESPECT, PANAMA CANAL OFFICIALS HAVE PROVIDED BRIEFINGS AND INFORMATION REGARDING CANAL OPERATING REQUIREMENTS TO ENSURE THAT POTENTIAL INVESTMENTS IN THE CANAL AREA ARE COMPATIBLE WITH THE CANAL'S CORE BUSINESS ACTIVITIES

OF COURSE, ONE OF THE BROADEST TRANSITION EFFORTS IS THE PROCESS OF MAKING INTELLIGENT ADJUSTMENTS TO PUBLIC LAW 96-70 THAT WILL FACILITATE THE TRANSITION PROCESS. I JOIN THE CHAIRMAN IN EXPRESSING OUR THANKS FOR YOUR LEADERSHIP IN GUIDING THE COMMISSION'S GOVERNMENT CORPORATION LAW TO A SUCCESSFUL CONCLUSION.

IN SUMMARY, THE TRANSITION EFFORTS ARE WELL ON TRACK, THERE IS STILL A LOT OF WORK AHEAD BUT, AS YOU CAN SEE, WE HAVE SPENT CONSIDERABLE TIME AND EFFORT IN DEVELOPING AND IMPLEMENTING THE ACTIONS NECESSARY TO ENSURE A SEAMLESS TRANSFER OF THE CANAL TO THE REPUBLIC OF PANAMA ON DECEMBER 31, 1999. THE TRANSFER WILL BRING ENORMOUS OPPORTUNITIES FOR PANAMA'S ECONOMIC DEVELOPMENT HOWEVER, IT WILL ALSO IMPOSE A GREAT RESPONSIBILITY -- THAT OF MAINTAINING THE HIGHEST STANDARDS OF QUALITY AND PROFESSIONALISM. A LARGE NUMBER OF PANAMANIANS HAVE ALREADY BEEN EXPOSED TO THE PLANNING AND SYSTEMATIC APPROACH WHICH IS PART OF THE CULTURE OF THE PANAMA CANAL, THEY KNOW IT CAN BE DONE. THE PANAMA CANAL HAS LIVED THROUGH MANY CHANGES, WE RECOGNIZE THE MAGNITUDE OF THE TASK AT HAND AND REALIZE THERE ARE NOT MANY PRECEDENTS ON WHICH TO BASE OUR ACTIONS. THIS ONLY MAKES THE PROCESS MORE CHALLENGING.

CLOSING

MR. CHAIRMAN, THAT CONCLUDES MY STATEMENT FOR THE RECORD. I WOULD LIKE TO TAKE THIS OPPORTUNITY TO EXPRESS MY SINCERE APPRECIATION TO THE PANEL MEMBERS FOR THE SUPPORT AND ASSISTANCE THEY HAVE PROVIDED TO THE PANAMA CANAL COMMISSION AND TO ME OVER THE LAST 5 YEARS. MR. CHAIRMAN, I LOOK FORWARD TO A CONTINUATION OF THIS HARMONIOUS AND PRODUCTIVE RELATIONSHIP UNDER YOUR LEADERSHIP WHICH WILL BECOME EVEN MORE ESSENTIAL AS WE MOVE INTO THESE LAST TRANSITION YEARS.

SURFACE TRANSPORTATION BOARD

PREPARED STATEMENT OF LINDA J. MORGAN, CHAIRMAN

Chairman Hatfield and Members of the Subcommittee, I am Linda J. Morgan, Chairman of the newly created Surface Transportation Board (Board). It is my pleasure to submit the budget request for the Board for fiscal year (FY) 1997.

Background on the Board

On January 1, 1996, the Board was established pursuant to P.L. 104-88, the ICC Termination Act of 1995 (ICCTA). Consistent with the trend toward less economic regulation of the surface transportation industry, the ICCTA eliminated the ICC and, with it, many regulatory functions that it had administered. The ICCTA transferred to the Board core rail functions and certain non-rail adjudicative functions. Motor carrier licensing and certain other motor functions were transferred to the Federal Highway Administration within the Department of Transportation (DOT).

Overview of Board Responsibilities

The Board is responsible for administering the economic regulation of the rail and pipeline industries and certain non-licensing regulation of motor and water carriers. The ICCTA empowers the Board, through its exemption authority, to promote deregulation administratively. The Board currently has pending close to 500 adjudications related to these functions. This caseload remains fairly constant because, even as cases are resolved, new cases are filed.

The rail oversight of the Board encompasses rate reasonableness, car service and interchange, mergers and line acquisitions, and line constructions and abandonments. The important rail reforms of the Staggers Rail Act of 1980 are continued under the ICCTA. The jurisdiction of the Board also includes limited oversight of the intercity bus industry and certain pipeline carriers; rate regulation involving non-contiguous domestic water transportation, household goods carriers, and collectively determined motor rates; and the disposition of motor carrier undercharge claims.

The Board's FY 1997 Budget Request

The Board's FY 1997 budget request totals $15.563 million.[1] This amount includes an appropriations request of $13,444,000 and a request for $2,119,000 in reimbursements, from the offsetting collection of user fees and from other agencies. The request includes funds for 134 staff years, $444,000 in personnel cost-of-living increases, and $1 million to cover severance payments and unemployment compensation costs for former ICC and Board employees who were separated from government service during FY 1996 and whose payments will continue into FY 1997. The $2,119,000 request from reimbursements includes $219,000 in reimbursements from other agencies and $1,900,000 from the offsetting collection of user fees based on the Board's existing program

assessing fees to cover the costs incurred by the Board for fee-related activities.[2]

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[1] Attached is a table which presents in more detail the specifics of the Board's FY 1997 budget request. It also indicates the budget savings reflected in this request of $15.563 million as compared to the ICC expenditures of $40.844 million in FY 1995 and the combined ICC/Board expenditures of $26.093 million in FY 1996.

[2] In this regard, the Board recently issued a notice of proposed rulemaking seeking comments on increased fees based on the Board's existing authority (the Independent Offices Appropriations Act of 1952). This proposal would 1) increase fees to reflect inflationary increases in personnel wages and
overhead costs; 2) assess fees for specific services for which the ICC could have imposed fees but chose not to; and 3) remove previously imposed caps on certain fees so that the proposed fees would reflect the actual cost of providing the services at issue. A waiver from fees could be obtained from the Board, as is the case now, based on an inability to pay. The comment period in this proceeding closed on May 6, and the Board is planning to issue a final decision in this matter sometime in June. The Board estimates that $3 million would be collected if these increased fees were adopted. This proposal has generated significant opposition.

By comparison, the President's FY 1997 Budget for the Board totals $15.344 million, all to be funded by user fees.[3] In this regard, additional statutory authority would be required to implement the President's user fee proposal, as the Board's current user fee authority would not allow the Board to increase user fees sufficient to fully fund itself.[4] The President's budget proposal also includes a $3.0 million appropriation, which shall be reduced as offsetting collections are received during FY 1997, so as to result in a final FY 1997 appropriation of $0. Additionally, the budget proposal provides that any fees received in excess of $15.344 million shall remain available until expended, but shall not be available for obligation until October 1, 1997.

Board Workload

The FY 1997 budget request reflects the personnel and non-personnel costs associated with the workload anticipated by the Board. The following is a summary of expected Board activity.

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[3] The difference between the Board's request of $15.563 million and the President's request of $15.344 million is $219,000. This amount relates to the railroad waybill contract shared by the Board and the Federal Railroad Administration (FRA) within DOT. Prior to this year, the ICC paid the full cost of the contract and then was reimbursed by FRA. The Board's budget request reflects that arrangement; for FY 1997, an amount of $438,000 would be paid by the Board and then $219,000 would be reimbursed by FRA. Subsequent to the Board's budget submission, the Board and FRA agreed to transfer administration of the railroad waybill contract from the Board to DOT. This agreement means that the Board will no longer pay the total cost of the contract up front, but rather only reimburse FRA for the Board's share of the cost. Thus, the amount of $219,000 that would have previously been reimbursed by FRA need no longer be reflected in the Board's budget under reimbursements; an amount of $219,000 to be paid by the Board to FRA of course still must be reflected in the Board's budget.

[4] Such a statutory change, if enacted, would need to become law by mid-June of this year. This would allow the minimum time necessary for the Board to complete a rulemaking to implement, by October 1 of this year, whatever new fee structure is needed to fully fund the Board in FY 1997.

Rail Rate Reasonableness -- Large Cases. As intermediate and long-term rail contracts for the transportation of coal continue to expire, coal shippers that are unable to renegotiate mutually acceptable contract rates will continue to file challenges to common carriage rates that become available in the absence of a contract rate. These shippers will argue that these common carrier rates are unreasonably high. The Board already has several such cases pending and recently decided one such case in favor of the shipper.[5]

Rail Rate Reasonableness -- Small Cases. The Board expects to receive small rail rate challenges in FY 1997, including challenges to rates charged for the shipment of grain and other agricultural products. These cases will be processed under the Board's simplified rate reasonableness methodology, to be finalized by the end of calendar year 1996.

Rail Restructuring. Pending before the Board for approval in FY 1996 is the proposed merger of the Union Pacific and Southern Pacific railroads. Additional rail merger and consolidation proposals are being discussed. With respect to other restructuring, the Board expects an increase in requests for rail abandonment and line sale authorizations, principally from two sources: Conrail, which has publicly announced a major program to reduce the size of its rail system by 1,800 miles; and BN-Santa Fe, which has stated that it will seek to shed 4,000 miles of track in order to realize many of the economies from its recently approved merger. The Board plans to process these anticipated abandonment and line sale requests under streamlined procedures soon to be adopted.

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[5] On May 3, 1996, the Board issued a decision in No. 41191, West Texas Utilities Company v. Burlington Northern Railroad Company, finding that the rates charged by Burlington Northern (BN) to West Texas for the movement of traffic at issue are unreasonably high.

Amtrak Compensation Disputes. Many of the long-term agreements under which Amtrak uses the track of the nation's individual freight railroads have expired or are expiring. The Board has been advised that Amtrak has renegotiated short-term agreements with most of these railroads. If any renegotiations prove not to be successful, Amtrak may bring any compensation dispute to the Board for resolution. In this regard, Amtrak filed, on April 19, 1996, a request that the Board set terms and compensation for Amtrak's use of BN-Santa Fe track.[6]

Motor Carrier Undercharges. The ICCTA expanded the reach of the unreasonable practice defense to motor carrier undercharge claims, specifically by extending this defense to shipments that moved after September 30, 1990. While the broader availability of this defense may assist the Board in resolving its existing docket of roughly 200 undercharge cases, this defense will not substantially affect the number of new undercharge cases coming to the Board as a result of court referrals.[7]

Summary

The Board's budget request would ensure the resources needed for the Board to implement its responsibilities expeditiously and effectively. In allocating needed resources to the Board, the Committee should consider providing flexibility in areas such as personnel levels and user fee carryovers to ensure that the Board can utilize its limited resources in the most efficient manner to carry out its mandate. I would be happy to answer any other questions that the Committee may have about the Board's FY 1997 budget request.

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[6] The Board has issued a procedural schedule for disposition of this matter. STB Finance Docket No. 32911, Application of the National Railroad Passenger Corp. Under 49 U.S.C. 24308(a)--Order to Require Service and Set Compensation Terms.

[7] In an effort to dispose of some of the undercharge docket, the Board has in place a procedure whereby, if such a case has been pending more than 6 months, the Board automatically issues a show-cause order directing the parties to show why their case should not be dismissed. Recently, approximately 50 cases were dismissed using this procedure.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

PREPARED STATEMENT OF ROBERT L. POLK, ACTING GENERAL MANAGER

THE WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY APPRECIATES THE OPPORTUNITY TO PRESENT THE AUTHORITY'S RAIL CONSTRUCTION APPROPRIATION REQUEST FOR FISCAL YEAR 1997 AND TO PROVIDE AN OVERVIEW OF THE AUTHORITY'S CAPITAL AND OPERATING PROGRAMS.

FAST TRACK CONSTRUCTION PROGRAM

THE AUTHORITY IS NOW IN THE FIFTH YEAR OF THE FAST TRACK CONSTRUCTION PROGRAM WHICH WAS DESIGNED TO COMPLETE THE REMAINING 13.5 MILES OF THE ADOPTED REGIONAL METRORAIL SYSTEM ON AN ACCELERATED SCHEDULE AND WITHIN THE CURRENT AUTHORIZATION.

THIS SUBCOMMITTEE HAS RECEIVED SEVERAL PREVIOUS BRIEFINGS ON THE FAST TRACK PROGRAM. THEREFORE, I WOULD LIKE TO BRIEFLY DISCUSS OUR REQUEST AND SUMMARIZE THE STATUS OF METRORAIL CONSTRUCTION.

THE AUTHORITY IS REQUESTING $200 MILLION IN FY1997 FEDERAL ASSISTANCE FOR OUR RAIL CONSTRUCTION PROGRAM. THESE FUNDS ARE AUTHORIZED UNDER THE NATIONAL CAPITAL TRANSPORTATION ACT AMENDMENTS OF 1990, WHICH PROVIDED $1.3 BILLION IN FEDERAL FUNDS, OR 62.5 PERCENT, TO BE MATCHED WITH $780 MILLION IN LOCAL CONTRIBUTIONS, OR 37.5 PERCENT OF THE TOTAL COST. *CHART 1* SHOWS OUR APPROPRIATIONS HISTORY AND PROJECTED REQUESTS UNDER THIS AUTHORIZATION. THE FAST TRACK PROGRAM WILL COMPLETE THE 103-MILE SYSTEM VIRTUALLY WITHOUT THE NEED FOR ADDITIONAL FEDERAL FUNDS. AS PROVIDED FOR IN OUR FULL FUNDING AGREEMENT WITH THE FEDERAL GOVERNMENT, FUNDING FOR THE BRANCH AVENUE YARD AND THE PURCHASE OF ADDITIONAL RAIL CARS REMAINS TO BE IDENTIFIED.

CHART 2 PROVIDES A CONSTRUCTION STATUS REPORT AND THE ANTICIPATED OPENING DATES FOR EACH OF THE FOUR RAIL LINES CURRENTLY UNDER CONSTRUCTION. THE LOCATION OF THESE LINES IS SHOWN ON *CHART 3*. WE HAVE EXECUTED FULL FUNDING AGREEMENTS FOR EACH OF THE FOUR LINES, THANKS TO THE EXCELLENT COOPERATION OF THE FEDERAL TRANSIT ADMINISTRATION. THE TIMELY RECEIPT OF FEDERAL FUNDING HAS ENABLED OUR FAST TRACK PROGRAM TO REMAIN ON SCHEDULE AND WITHIN BUDGET.

FINANCING FAST TRACK

THE SUCCESS OF THE FAST TRACK PROGRAM HAS BEEN THE ABILITY TO CONSTRUCT THE REMAINING RAIL SEGMENTS AS RAPIDLY AS POSSIBLE, WITHOUT TIME CONSTRAINTS BASED ON FUNDING AVAILABILITY. THE OBJECT OF FAST TRACK IS TO OBLIGATE FUNDS ACCORDING TO AN OPTIMAL RAIL CONSTRUCTION SCHEDULE, WHILE MAINTAINING LEVEL FEDERAL FUNDING. TO MEET THE GAP BETWEEN THE TIME THAT CONTRACTS ARE AWARDED AT AN OPTIMAL PACE AND THE LATER RECEIPT OF FUNDS, A UNIQUE FINANCING ARRANGEMENT HAS BEEN ESTABLISHED WITH A CONSORTIUM OF BANKS, WHO HAVE AGREED TO FURNISH A $600 MILLION LINE OF CREDIT.

THIS FINANCING MECHANISM, AS WELL AS OUR PROJECT MANAGER ORGANIZATION WHICH HAS PERMITTED US TO ESTABLISH BOTH MANAGERIAL AUTHORITY AND RESPONSIBILITY, HAVE BEEN PIVOTAL TO OUR ABILITY TO ACCELERATE CONSTRUCTION. BY SHAVING FIVE YEARS OFF THE PREVIOUSLY EXPECTED COMPLETION DATE AND BUILDING AS RAPIDLY AS POSSIBLE, THE FAST TRACK PROGRAM SAVES $600 MILLION OVER THE LIFE OF THE PROJECT. THE PUBLIC IS NOT PAYING FOR INFLATION OR EXTENDED OVERHEAD EXPENSES.

AS SHOWN IN *CHART 4*, TO DATE OUR CUMULATIVE OBLIGATIONS HAVE BEEN $1.2 BILLION, WHILE FEDERAL AND LOCAL CONTRIBUTIONS HAVE EQUALED 88 PERCENT OF THIS AMOUNT. TO DATE THE AUTHORITY HAS UTILIZED $143 MILLION IN THE LINE OF CREDIT TO BRIDGE THE GAP BETWEEN CONTRACTING REQUIREMENTS AND THE RECEIPT OF APPROPRIATED FUNDS. *CHART 5* SHOWS OUR OBLIGATIONS SCHEDULE, WHICH PEAKED IN THE CURRENT YEAR WITH $495 MILLION IN OBLIGATIONS, AND WILL CONTINUE THROUGH 2003.

THE TRULY BIPARTISAN COMMITMENT TO COMPLETING THE PLANNED 103-MILE SYSTEM HAS ENABLED THE FAST TRACK PROGRAM TO SUCCEED. WE GREATLY APPRECIATE THE INCLUSION OF $200 MILLION FOR METRORAIL CONSTRUCTION IN THE PRESIDENT'S PROPOSED FY1997 BUDGET. THE SUPPORT OF THIS SUBCOMMITTEE AND THE CONGRESS HAVE ENABLED US TO SECURE A LINE OF CREDIT AND MAINTAIN OUR AMBITIOUS CONSTRUCTION SCHEDULE, THEREBY SAVING THE TAXPAYER HUNDREDS OF MILLIONS OF DOLLARS OVER THE LIFE OF THE PROJECT. WE GREATLY APPRECIATE YOUR VOTE OF CONFIDENCE IN THIS PROGRAM. COMPLETING THE FAST TRACK PROGRAM AS PLANNED MAKES ECONOMIC SENSE FOR THE REGION AND FOR THE COUNTRY.

REGIONAL ECONOMIC BENEFITS

RECENTLY METRO AND THE FEDERAL TRANSIT ADMINISTRATION SPONSORED A TWO-DAY SYMPOSIUM ON TRANSIT-ORIENTED DEVELOPMENT AND LIVABLE COMMUNITIES. THIS CONFERENCE WAS DESIGNED TO EXPLORE THE POTENTIAL FOR LEVERAGING THE PUBLIC INVESTMENT IN METRORAIL IN ORDER TO ATTRACT PRIVATE SECTOR DEVELOPMENT PROJECTS IN THE VICINITY OF METRORAIL STATIONS. AS THE RECENT REPORT CONSERVATIVES AND MASS TRANSIT: IS IT TIME FOR A NEW LOOK?, BY PAUL WEYRICH AND WILLIAM S. LIND NOTES, "QUALITY MASS TRANSIT CAN HAVE A PROFOUND AND

POSITIVE EFFECT ON ECONOMIC GROWTH AND DEVELOPMENT." ACCORDING TO A RECENT KMPG PEAT MARWICK STUDY, FISCAL IMPACT OF METRORAIL ON THE COMMONWEALTH OF VIRGINIA, BY 2010, METRORAIL WILL GENERATE DEVELOPMENT PROJECTS IN VIRGINIA ALONE TOTALING:

- 25 MILLION ADDITIONAL SQUARE FEET OF OFFICE SPACE;
- 1.8 MILLION ADDITIONAL SQUARE FEET OF RETAIL SPACE;
- 4,000 ADDITIONAL HOTEL ROOMS;
- 31,000 ADDITIONAL RESIDENTIAL UNITS; AND
- 91,000 ADDITIONAL JOBS IN OFFICES, RETAIL AND HOTELS.

WE ARE ALSO PLEASED TO NOTE THAT PERHAPS THE MOST INNOVATIVE PUBLIC-PRIVATE PARTNERSHIP IN THE TRANSIT INDUSTRY HAS BEEN PROPOSED IN THE WASHINGTON REGION. RECENTLY, THE RF&P CORPORATION AND METRO ENTERED INTO AN AGREEMENT FOR RF&P TO CONSTRUCT, AT A COST OF $20 MILLION TO RF&P, AND NO CONSTRUCTION COST TO THE AUTHORITY, A NEW METRORAIL STATION FOR RF&P'S POTOMAC YARD DEVELOPMENT PROJECT. THIS IS CLEAR EVIDENCE THAT QUALITY PUBLIC TRANSIT CAN PLAY A PIVOTAL ROLE IN ATTRACTING AND RETAINING PRIVATE SECTOR INVESTMENT IN A COMMUNITY.

NATIONAL ECONOMIC BENEFITS

METRORAIL CONSTRUCTION ALSO CREATES PRIVATE SECTOR GROWTH THROUGHOUT THE NATION. OF THE $1.1 BILLION OBLIGATED THUS FAR UNDER THE FAST TRACK PROGRAM, METRO HAS AWARDED CONSTRUCTION CONTRACTS OR PURCHASED PRODUCTS FROM COMPANIES LOCATED THROUGHOUT THE COUNTRY. FOR EXAMPLE, WE PURCHASE FARE COLLECTION EQUIPMENT MADE IN CALIFORNIA AND RAIL FROM PENNSYLVANIA. ONE OF OUR LARGEST CONSTRUCTION CONTRACTORS IS HEADQUARTERED IN NEBRASKA.

METRORAIL CONSTRUCTION BRINGS JOBS AND REVENUES TO ECONOMIES ACROSS THE NATION.

CAPITAL IMPROVEMENT PROGRAM

MANY OF THESE SAME ECONOMIC BENEFITS RESULT FROM THE CONTINUAL REINVESTMENT WE MAKE IN OUR PHYSICAL PLANT. THE METRORAIL SYSTEM LOOKS RELATIVELY NEW, BUT WE JUST CELEBRATED OUR TWENTIETH BIRTHDAY. IT CONTINUES TO LOOK NEW, TO BE RELIABLE, SAFE, AND CONVENIENT, ONLY BECAUSE WE MAKE THAT CONTINUING INVESTMENT IN MAINTAINING AND REHABILITATING THE SYSTEM.

OUR FY1997 CAPITAL PROGRAM WILL TOTAL $152 MILLION IN MATCHED DOLLARS. THIS PROGRAM IS FOCUSED ON MODERNIZING OUR RAIL AND BUS FLEETS, REHABILITATION OF STATIONS, BUS GARAGES AND OTHER FACILITIES, AND MAINTAINING THE SYSTEM.

OUR CAPITAL PROGRAM IS FINANCED USING A COMBINATION OF FEDERAL CAPITAL ASSISTANCE, FLEXIBLE ISTEA FUNDS, AND PROCEEDS FROM REFINANCING OUR TRANSIT REVENUE BONDS. WE URGE YOU TO CONTINUE TO MAKE SECTION 9 CAPITAL AND SECTION 3 RAIL MODERNIZATION FUNDS A PRIORITY FOR TRANSIT FUNDING. IT IS CRITICAL THAT PUBLIC TRANSIT SYSTEMS BE MAINTAINED IN ORDER TO PROVIDE SAFE, EFFICIENT OPERATIONS AND TO PRESERVE THE SUBSTANTIAL PUBLIC INVESTMENT IN TRANSIT.

OPERATING BUDGET

I WOULD LIKE TO TOUCH BRIEFLY ON THE AUTHORITY'S OPERATING BUDGET OUTLOOK. THERE ARE MANY EXTERNAL ECONOMIC FACTORS THAT HAVE POSED SIGNIFICANT CHALLENGES TO THE AUTHORITY OVER THE PAST YEAR.

WE HAVE CHOSEN TO DEAL WITH OUR RISING COSTS AND REVENUE SHORTFALL BY CONTINUING TO DO MORE WITH LESS WHERE POSSIBLE, AND TO DO LESS WITH LESS, WHERE NECESSARY. WE HAVE REDUCED AUTHORITY STAFFING BY 800 POSITIONS, AT A TIME WHEN THE RAIL SYSTEM INCREASED IN SIZE BY 50 PERCENT, AND IN SERVICE BY 75 PERCENT.

DUE TO THE CURRENT ECONOMIC CONDITIONS IN THIS AREA, INCLUDING THE CONTINUING FINANCIAL CHALLENGES FACED BY THE DISTRICT OF COLUMBIA, AS WELL AS THE REDUCTION IN JOBS IN THE DISTRICT CORE, OUR RIDERSHIP AND REVENUE HAVE GROWN AT A SLOWER RATE THAN WE PROJECTED. OUR REVENUE SHORTFALL, COMPARED TO EXPECTATIONS, WAS EXACERBATED BY THE EFFECTS OF THE FEDERAL FURLOUGH, THE GENERAL DOWNSIZING OF THE FEDERAL GOVERNMENT, REDUCTIONS IN FEDERAL OPERATING ASSISTANCE, AND THE SEVERE WINTER WE EXPERIENCED. THE WEATHER ALONE CREATED MORE THAN $8 MILLION IN ADDITIONAL OPERATING COSTS AND REVENUE LOSSES.

THE FEDERAL MANDATE TO PROVIDE COMPREHENSIVE PARATRANSIT SERVICE BY JANUARY 1997 IS ALSO PROVING TO BE A SIGNIFICANT CHALLENGE. OUR PARATRANSIT BUDGET WILL GROW FROM $5.7 MILLION IN FY1996 TO $8.4 MILLION IN FY1997, AN INCREASE OF NEARLY 50 PERCENT. IN ADDITION TO THIS OPERATING EXPENSE, THE AUTHORITY IS SPENDING TENS OF MILLIONS OF DOLLARS TO MODIFY ITS RAIL AND BUS SYSTEMS TO BE IN FULL COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT. SOME OF THE MAJOR MODIFICATIONS TO BRING US INTO FULL COMPLIANCE INCLUDE, WIDENING OUR FAREGATES TO ACCOMMODATE WHEELCHAIRS, LOWERING OUR FARE VENDORS, INSTALLING AN ELECTRONIC SIGNAGE SYSTEM FOR HEARING IMPAIRED PATRONS, AND DEVELOPING AN ELECTRONIC PLATFORM EDGE

DETECTION SYSTEM TO ASSIST VISUALLY IMPAIRED INDIVIDUALS IN LOCATING THE PLATFORM EDGE AND NAVIGATING TO OPEN TRAIN CAR DOORS.

WE VERY MUCH APPRECIATE THE INCLUSION IN LAST YEAR'S APPROPRIATIONS MEASURE OF FAIR AND REASONABLE LOCAL ECONOMIC CRITERIA FOR AN ARBITRATOR TO CONSIDER IN SETTLING A METRO WAGE ARBITRATION. THIS HAS PROVEN MOST BENEFICIAL TO THE AUTHORITY. THE MOST RECENT LABOR CONTRACT NEGOTIATED WITH THE AMALGAMATED TRANSIT UNION DURING THE TIME WHEN THE BILL WAS BEING DELIBERATED BY THE CONGRESS, RESULTED IN A NET SAVINGS OF $14 MILLION TO THE AUTHORITY OVER THE THREE YEAR LIFE OF THE CONTRACT. THIS WAS THE FIRST TIME IN METRO'S HISTORY THAT A LABOR CONTRACT PRODUCED SUCH SAVINGS FOR THE AUTHORITY. IN THIS CONTRACT, WE HAVE BEEN ABLE TO REDUCE THE STARTING WAGE FOR A BUS OPERATOR FROM $13.76 PER HOUR TO $11.01 PER HOUR, A LOWER RATE THAN CHICAGO, NEW JERSEY, LOS ANGELES, NEW YORK, DENVER, OR SAN DIEGO, AND ONLY SLIGHTLY HIGHER THAN THE STARTING WAGE FOR OPERATORS IN LOCAL BUS SYSTEMS IN THIS AREA.

THIS FAVORABLE CONTRACT SETTLEMENT, COMBINED WITH ADMINISTRATIVE SAVINGS, AND SERVICE ADJUSTMENTS HAS ENABLED THE AUTHORITY TO PROPOSE AN FY1997 OPERATING BUDGET TO THE LOCAL JURISDICTIONS WITH AN $16.5 MILLION DECREASE IN COSTS, DESPITE THE OPENING OF THE FRANCONIA-SPRINGFIELD STATION AND EXPANSION OF PARATRANSIT SERVICE. THE PROPOSED LOCAL SUBSIDY INCREASE IS UNDER CONSIDERATION BY THE LOCAL JURISDICTIONS IN THIS AREA. THE LOCAL JURISDICTIONS THROUGHOUT THE AREA ARE ATTEMPTING TO BALANCE THEIR DESIRE TO PROVIDE QUALITY, AFFORDABLE TRANSIT WITH THEIR NEED TO BALANCE THEIR OWN BUDGETS.

CONCLUSION

THE FINANCIAL CHALLENGES WE FACE HAVE LED SOME TO PONDER METRO'S FUTURE. WE RECOGNIZE THAT WHILE WE PLAY A CRITICALLY IMPORTANT ROLE IN THIS REGION IN PROVIDING MOBILITY, RELIEVING CONGESTION, REDUCING POLLUTION, AND IMPROVING THE QUALITY OF LIFE, WE CANNOT BE ALL THINGS TO ALL PEOPLE. WE PROVIDE A CHOICE FOR THOSE WHO WISH TO RIDE PUBLIC TRANSIT BECAUSE IT IS CONVENIENT AND AFFORDABLE OR BECAUSE IT MAY BE A NECESSITY. THOSE INDIVIDUALS WHO CHOOSE TO DRIVE THEIR CARS HAVE A LESS CONGESTED ROADWAY TO TRAVEL BECAUSE METRO IS GETTING SIGNIFICANT NUMBERS OF CARS OFF THE ROAD.

WE STRIVE TO CONTINUE TO PROVIDE QUALITY PUBLIC TRANSIT BECAUSE IT IS AN ECONOMIC NECESSITY FOR THIS REGION. WITHOUT QUALITY PUBLIC TRANSIT THE REGION CANNOT ATTRACT JOBS AND ECONOMIC DEVELOPMENT. WITHOUT QUALITY PUBLIC TRANSIT COMMUTERS FROM THE SUBURBS CANNOT GET TO THE CITY. WITHOUT QUALITY PUBLIC TRANSIT, PEOPLE CANNOT MOVE FROM WELFARE TO JOBS. QUALITY PUBLIC TRANSIT IN THIS REGION IS CRITICAL TO EFFICIENT OPERATION OF THE FEDERAL GOVERNMENT AND TO TRANSPORTING THE MILLIONS OF VISITORS TO THIS AREA FROM ACROSS THE COUNTRY AND AROUND THE WORLD.

WE ENCOURAGE YOU TO EXAMINE THE SUCCESS OF METRO IN BUILDING AND OPERATING QUALITY TRANSIT FOR THE NATIONAL CAPITAL REGION. WE PLEDGE TO YOU THAT WE WILL CONTINUE TO PROVIDE THE HIGHEST QUALITY TRANSIT SERVICE WE CAN, WITHIN AVAILABLE RESOURCES. PUBLIC TRANSIT CONTRIBUTES MUCH TO THE FINANCIAL VITALITY OF THIS REGION AND IS ESSENTIAL TO ITS FUTURE ECONOMIC GROWTH. WE URGE YOUR SUPPORT FOR BOTH COMPLETION OF THE 103-MILE METRORAIL SYSTEM AND PRESERVATION OF THE PUBLIC INVESTMENT IN OUR CAPITAL PLANT.

Chart 1

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY RAIL CONSTRUCTION PROGRAM FEDERAL FUNDING

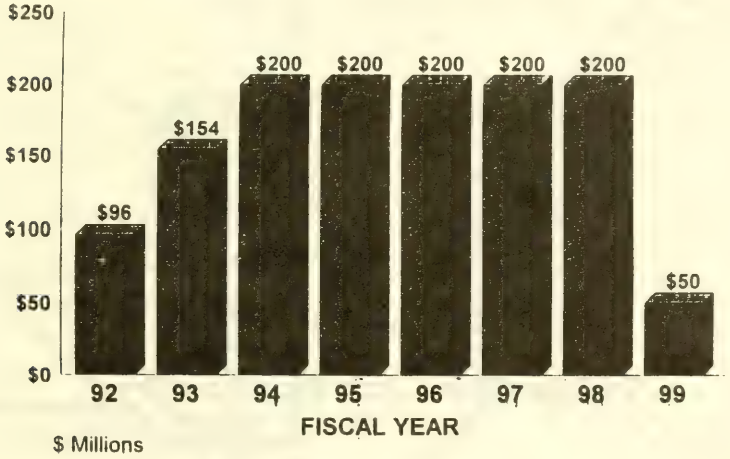


Chart 2

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY RAIL CONSTRUCTION PROGRAM

103 MILE SYSTEM SCHEDULE OF COMPLETION

SEGMENT	PERCENT COMPLETE	OPENING DATE
FRANCONIA / SPRINGFIELD	65%	JUNE 1997
GLENMONT	53%	JULY 1998
U STREET TO FORT TOTTEN	45%	OCTOBER 1999
BRANCH AVENUE	10%	MARCH 2001

Chart 3

METRORAIL SYSTEM MAP

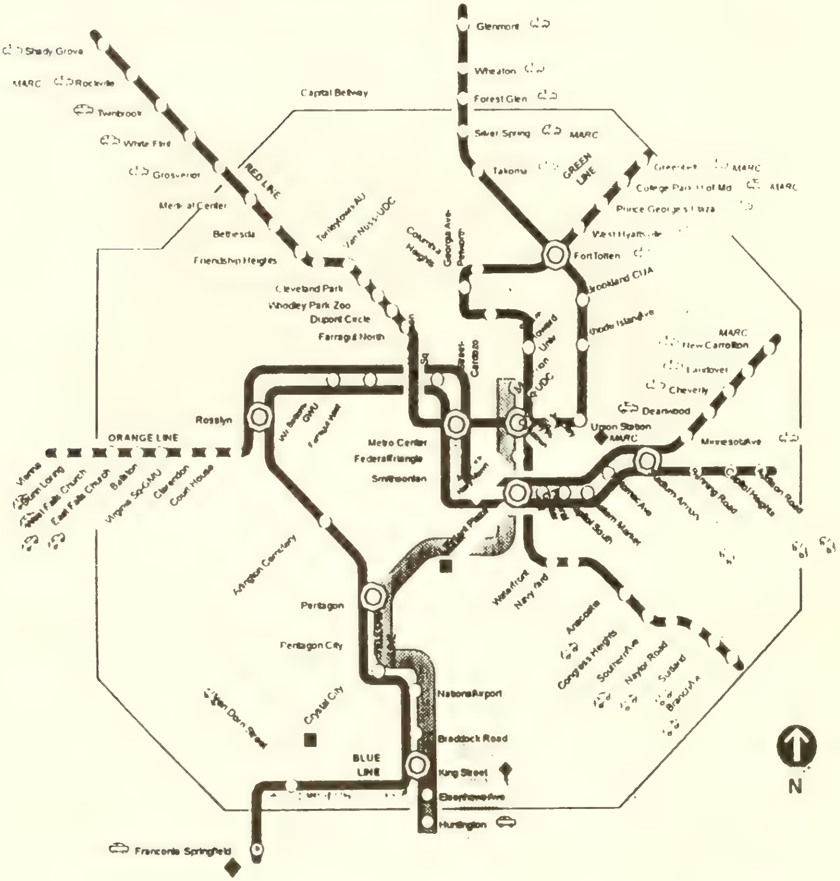


Chart 4

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY RAIL CONSTRUCTION PROGRAM BUDGET

OBLIGATIONS AND FUNDING THROUGH FEBRUARY 1996

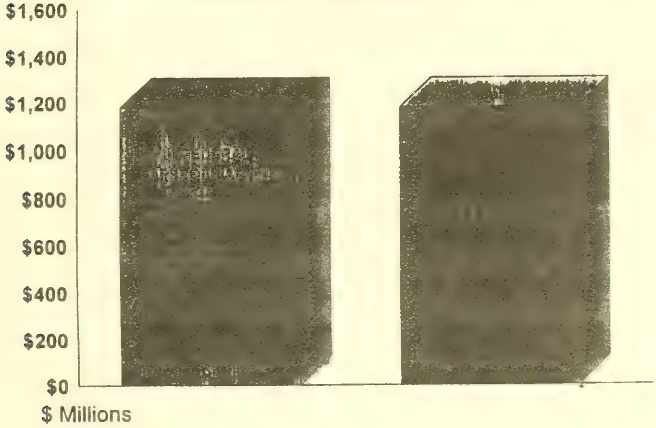
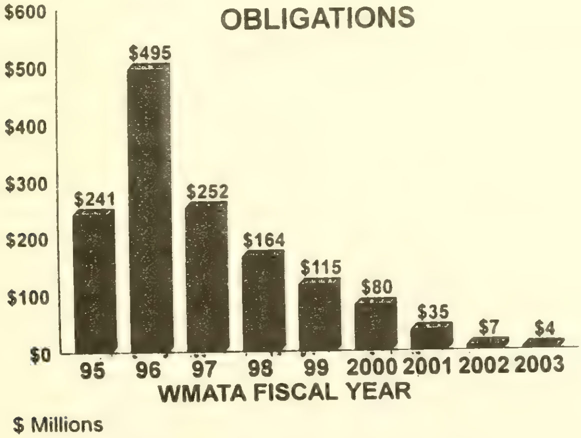


Chart 5

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY RAIL CONSTRUCTION PROGRAM BUDGET



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